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# SOUTH CAROLINA STATE REGISTER

PUBLISHED BY  
THE LEGISLATIVE COUNCIL  
of the  
GENERAL ASSEMBLY

STEPHEN T. DRAFFIN, DIRECTOR  
ANNE F. CUSHMAN, EDITOR  
DEIRDRE BREVARD-SMITH, ASSOCIATE EDITOR

P.O. BOX 11489  
COLUMBIA, SC 29211  
TELEPHONE (803) 212-4500

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# ***SOUTH CAROLINA STATE REGISTER***

An official state publication, the *South Carolina State Register* is a temporary update to South Carolina's official compilation of agency regulations--the *South Carolina Code of Regulations*. Changes in regulations, whether by adoption, amendment, repeal or emergency action must be published in the *State Register* pursuant to the provisions of the Administrative Procedures Act. The *State Register* also publishes the Governor's Executive Orders, notices or public hearings and meetings, and other documents issued by state agencies considered to be in the public interest. All documents published in the *State Register* are drafted by state agencies and are published as submitted. Publication of any material in the *State Register* is the official notice of such information.

## **STYLE AND FORMAT**

Documents are arranged within each issue of the *State Register* according to the type of document filed:

**Notices** are documents considered by the agency to have general public interest.

**Notices of Drafting Regulations** give interested persons the opportunity to comment during the initial drafting period before regulations are submitted as proposed.

**Proposed Regulations** are those regulations pending permanent adoption by an agency.

**Pending Regulations Submitted to the General Assembly** are regulations adopted by the agency pending approval by the General Assembly.

**Final Regulations** have been permanently adopted by the agency and approved by the General Assembly.

**Emergency Regulations** have been adopted on an emergency basis by the agency.

**Executive Orders** are actions issued and taken by the Governor.

## **2008 PUBLICATION SCHEDULE**

Documents will be accepted for filing on any normal business day from 8:30 A.M. until 5:00 P.M. All documents must be submitted in the format prescribed in the *Standards Manual for Drafting and Filing Regulations*.

To be included for publication in the next issue of the *State Register*, documents will be accepted no later than 5:00 P.M. on any closing date. The modification or withdrawal of documents filed for publication must be made **by 5:00 P.M.** on the closing date for that issue.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Submission Deadline	1/11	2/8	3/14	4/11	5/9	6/13	7/11	8/8	9/12	10/10	11/14	12/12
Publishing Date	1/25	2/22	3/28	4/25	5/23	6/27	7/25	8/22	9/26	10/24	11/28	12/26

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## PUBLIC INSPECTION OF DOCUMENTS

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## ADOPTION, AMENDMENT AND REPEAL OF REGULATIONS

To adopt, amend or repeal a regulation, an agency must publish in the *State Register* a Notice of Drafting; a Notice of the Proposed Regulation that contains an estimate of the proposed action's economic impact; and, a notice that gives the public an opportunity to comment on the proposal. If requested by twenty-five persons, a public hearing must be held at least thirty days after the date of publication of the notice in the *State Register*.

After the date of hearing, the regulation must be submitted to the General Assembly for approval. The General Assembly has one hundred twenty days to consider the regulation. If no legislation is introduced to disapprove or enacted to approve before the expiration of the one-hundred-twenty-day review period, the regulation is approved on the one hundred twentieth day and is effective upon publication in the *State Register*.

## EMERGENCY REGULATIONS

An emergency regulation may be promulgated by an agency if the agency finds imminent peril to public health, safety or welfare. Emergency regulations are effective upon filing for a ninety-day period. If the original filing began and expired during the legislative interim, the regulation can be renewed once.

## REGULATIONS PROMULGATED TO COMPLY WITH FEDERAL LAW

Regulations promulgated to comply with federal law are exempt from General Assembly review. Following the notice of proposed regulation and hearing, regulations are submitted to the *State Register* and are effective upon publication.

## EFFECTIVE DATE OF REGULATIONS

**Final Regulations** take effect on the date of publication in the *State Register* unless otherwise noted within the text of the regulation.

**Emergency Regulations** take effect upon filing with the Legislative Council and remain effective for ninety days. If the original ninety-day period begins and expires during legislative interim, the regulation may be refiled for one additional ninety-day period.

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# REGULATIONS SUBMITTED TO GENERAL ASSEMBLY 1

In order by General Assembly review expiration date  
 The history, status, and full text of these regulations are available on the  
 South Carolina General Assembly Home Page: [www.scstatehouse.net](http://www.scstatehouse.net)

DOC NO.	RAT NO.	FINAL ISSUE	SUBJECT	EXP. DATE	AGENCY
3119		SR32-2	Educational Requirements	1/13/08	LLR - Real Estate Appraisers Board
3116		SR32-2	Malpractice Insurance Claims	1/20/08	Department of Insurance
3117		SR32-2	Workers' Compensation Assigned Risk Rates	1/20/08	Department of Insurance
3109		SR32-2	Property Tax	1/29/08	Department of Revenue
3110		SR32-2	Restocking Fees	1/29/08	Department of Revenue
3122		SR32-5	Wildlife Management Area Regulations	4/13/08	Department of Natural Resources
3113		SR32-5	Solid Waste Management	5/05/08	Department of Health and Envir Control
3125		SR32-5	Driver Schools and Truck Driver Training Schools	5/07/08	Department of Public Safety
3112		SR32-5	Environmental Protection Fees	5/07/08	Department of Health and Envir Control
3114		SR32-5	Tanning Facilities	5/07/08	Department of Health and Envir Control
3126		SR32-5	Motor Carrier Regulations	5/07/08	Public Service Commission
3133		SR32-5	Weights and Measures	5/07/08	Department of Agriculture
3123	R200	SR32-3	Gasoline, Lubricating Oils and Other Petroleum Products	5/07/08	Department of Agriculture
3124		SR32-5	Eligible Telecommunications Carrier	5/07/08	Public Service Commission
3128		SR32-5	Electric Systems and Gas Systems	5/07/08	Public Service Commission
3141		SR32-5	Wildlife Management Area Regulations	5/07/08	Department of Natural Resources
3143		SR32-5	Free Tuition for Residents Sixty Years of Age	5/07/08	Commission on Higher Education
3135		SR32-5	Chapter Revision (136-001 through 136-799)	5/07/08	LLR - Commissioners of Pilotage
3174		SR32-5	SC Procurement Regulations - Pre-Bid Conferences	5/07/08	Budget and Control Board
3175		SR32-5	SC Procurement Regulations	5/07/08	Budget and Control Board
3149		SR32-5	Environmental Electronic Reporting Requirements	5/07/08	Department of Health and Envir Control
3152		SR32-5	Underground Storage Tank Control Regulations	5/07/08	Department of Health and Envir Control
3138		SR32-5	Free Textbooks	5/08/08	State Board of Education
3151		SR32-5	South Carolina Birth Defects Program	5/08/08	Department of Health and Envir Control
3137		SR32-5	School-To-Work Transition Act	5/09/08	State Board of Education
3155		SR32-5	Water Pollution Control Permits	5/09/08	Department of Health and Envir Control
3154		SR32-5	Individual Sewage Treatment and Disposal Systems	5/09/08	Department of Health and Envir Control
3139		SR32-5	Ice	5/09/08	Department of Health and Envir Control
3181			Barrier Free Building Design	5/10/08	LLR - Building Codes Council
3182			Building Code Repeals	5/10/08	LLR - Building Codes Council
3183			Modular Building Construction Act	5/10/08	LLR - Building Codes Council
3150			Hazardous Waste Management	5/10/08	Department of Health and Envir Control
3168			SCDOT Secretary of Transportation Approval of Actions	5/13/08	Department of Transportation
3111	R212	SR32-4	Coastal Division Regulations	5/13/08	Department of Health and Envir Control
3129			Licensing Criteria	5/14/08	Commission on Higher Education
3170			Nonpublic Postsecondary Inst. Licensing - Bond Funds	5/14/08	Commission on Higher Education
3161	R221	SR32-4	Water Classifications and Standards	5/16/08	Department of Health and Envir Control
3179	R211	SR32-4	Data Reporting Requirements - S.C. Hospitals	5/16/08	Budget and Control Board
3160			Shellfish	5/16/08	Department of Health and Envir Control
3162			Standards of Performance for Asbestos Projects	5/22/08	Department of Health and Envir Control
3134			Standards for Licensing Nursing Homes	5/22/08	Department of Health and Envir Control
3180			Actuarial Opinion and Memorandum Regulation	5/30/08	Department of Insurance
3178			Data Reporting Requirements - Ambulatory Data	5/31/08	Budget and Control Board
3172			SC Residency Program	6/04/08	Commission on Higher Education
3173			SC HOPE Scholarship	6/04/08	Commission on Higher Education
3185			SC Need-based Grants Program	6/04/08	Commission on Higher Education
3158			Sales Tax	6/04/08	Department of Revenue
3159			Accommodation	6/04/08	Department of Revenue
3163			Sales Tax	6/04/08	Department of Revenue
3164			Communications Services	6/04/08	Department of Revenue
3195			Prequalification of Bidders	6/04/08	Department of Transportation
3193			Practice of Dietetics within the State of SC	1/17/09	LLR - Panel for Dietetics
3189			Food Tax	1/27/09	Department of Revenue
3191			Advanced Placement	2/01/09	State Board of Education
3192			Requirements for Additional Areas of Certification	2/01/09	State Board of Education
3201			Mobile Dental Facilities and Portable Dental Operations	3/03/09	LLR - Board of Dentistry
3202			Requirements for Licensure as a Physical Therapist	3/03/09	LLR - Board of Physical Therapy Examiners
3196			S.C. National Guard College Assistance Program	3/23/09	Commission on Higher Education

## 2 REGULATIONS SUBMITTED TO GENERAL ASSEMBLY

3206	Application, Renewal and Continuing Education	3/31/09	LLR - Board of Chiropractic Examiners
3207	Board of Veterinary Medical Examiners Chapter Revision	3/31/09	LLR - Bd of Veterinary Medical Examiners
3204	Licensing Standards for Continuing Care		
	Retirement Communities	4/01/09	Department of Consumer Affairs
3199	South Carolina Trauma Care Systems	4/01/09	Department of Health and Envir Control
<b>Committee Requested Withdrawal:</b>			
3166	SCDOT Chief Internal Auditor		Department of Transportation
3184	Restructuring ATF Regulations - Pyrotechnic Safety		LLR - Board of Pyrotechnic Safety
3165	Transportation Project Prioritization		Department of Transportation
3167	SCDOT Commission Approval of Actions		Department of Transportation
<b>Permanently Withdrawn:</b>			
3118	Mobile Dental Facilities and Portable Dental Operations		LLR: Board of Dentistry
3127	Chapter Revision		LLR - Veterinary Medical Examiners

## COMMITTEE LIST OF REGULATIONS SUBMITTED TO GENERAL ASSEMBLY 3

In order by General Assembly review expiration date  
The history, status, and full text of these regulations are available on the  
South Carolina General Assembly Home Page: [www.scstatehouse.net](http://www.scstatehouse.net)

DOC No.	SUBJECT	HOUSE COMMITTEE	SENATE COMMITTEE
3119	Educational Requirements	Labor, Commerce and Industry	Labor, Commerce and Industry
3116	Malpractice Insurance Claims	Labor, Commerce and Industry	Banking and Insurance
3117	Workers' Compensation Assigned Risk Rates	Labor, Commerce and Industry	Banking and Insurance
3109	Property Tax	Ways and Means	Finance
3110	Restocking Fees	Ways and Means	Finance
3122	Wildlife Management Area Regulations	Agriculture and Natural Resources	Fish, Game and Forestry
3113	Solid Waste Management	Agriculture and Natural Resources	Medical Affairs
3125	Driver Schools and Truck Driver Training Schools	Education and Public Works	Judiciary
3112	Environmental Protection Fees	Agriculture and Natural Resources	Agriculture and Natural Resources
3114	Tanning Facilities	Medical, Military, Pub & Mun Affairs	Labor, Commerce and Industry
3126	Motor Carrier Regulations	Labor, Commerce and Industry	Judiciary
3133	Weights and Measures	Agriculture and Natural Resources	Agriculture and Natural Resources
3123	Gasoline, Lubricating Oils and Other Petroleum Products	Agriculture and Natural Resources	Agriculture and Natural Resources
3124	Eligible Telecommunications Carrier	Labor, Commerce and Industry	Judiciary Committee
3128	Electric Systems and Gas Systems	Labor, Commerce and Industry	Judiciary
3141	Wildlife Management Area Regulations	Agriculture and Natural Resources	Fish, Game and Forestry
3143	Free Tuition for Residents Sixty Years of Age	Education and Public Works	Education
3135	Chapter Revision (136-001 through 136-799)	Labor, Commerce and Industry	Transportation
3174	SC Procurement Regulations - Pre-Bid Conferences	Ways and Means	Finance
3175	SC Procurement Regulations	Ways and Means	Finance
3149	Environmental Electronic Reporting Requirements	Agriculture and Natural Resources	Medical Affairs
3152	Underground Storage Tank Control Regulations	Agriculture and Natural Resources	Medical Affairs
3138	Free Textbooks	Education and Public Works	Invitations
3151	South Carolina Birth Defects Program	Medical, Military, Pub & Mun Affairs	Medical Affairs
3137	School-To-Work Transition Act	Education and Public Works	Education
3155	Water Pollution Control Permits	Agriculture and Natural Resources	Medical Affairs
3154	Individual Sewage Treatment and Disposal Systems	Agriculture and Natural Resources	Medical Affairs
3139	Ice	Agriculture and Natural Resources	Medical Affairs
3181	Barrier Free Building Design	Labor, Commerce and Industry	Labor, Commerce and Industry
3182	Building Code Repeals	Labor, Commerce and Industry	Labor, Commerce and Industry
3183	Modular Building Construction Act	Labor, Commerce and Industry	Labor, Commerce and Industry
3150	Hazardous Waste Management	Agriculture and Natural Resources	Medical Affairs
3168	SCDOT Secretary of Transportation Approval of Actions	Education and Public Works	Transportation
3111	Coastal Division Regulations	Agriculture and Natural Resources	Agriculture and Natural Resources
3129	Licensing Criteria	Education and Public Works	Education
3170	Nonpublic Postsecondary Inst. Licensing - Bond Funds	Education and Public Works	Education
3161	Water Classifications and Standards	Agriculture and Natural Resources	Medical Affairs
3179	Data Reporting Requirements - S.C. Hospitals	Medical, Military, Pub & Mun Affairs	Medical Affairs
3160	Shellfish	Agriculture and Natural Resources	Fish, Game and Forestry
3162	Standards of Performance for Asbestos Projects	Agriculture and Natural Resources	Medical Affairs
3134	Standards for Licensing Nursing Homes	Medical, Military, Pub & Mun Affairs	Medical Affairs
3180	Actuarial Opinion and Memorandum Regulation	Labor, Commerce and Industry	Banking and Insurance
3178	Data Reporting Requirements - Ambulatory Data	Medical, Military, Pub & Mun Affairs	Medical Affairs
3172	SC Residency Program	Education and Public Works	Education
3173	SC HOPE Scholarship	Education and Public Works	Education
3185	SC Need-based Grants Program	Education and Public Works	Education
3158	Sales Tax	Ways and Means	Finance
3159	Accommodation	Ways and Means	Finance
3163	Sales Tax	Ways and Means	Finance
3164	Communications Services	Ways and Means	Finance
3195	Prequalification of Bidders	Ways and Means	Transportation
3193	Practice of Dietetics within the State of SC	Medical, Military, Pub & Mun Affairs	Labor, Commerce and Industry
3189	Food Tax	Ways and Means	Finance
3191	Advanced Placement	Education and Public Works	Education
3192	Requirements for Additional Areas of Certification	Education and Public Works	Education
3201	Mobile Dental Facilities and Portable Dental Operations	Medical, Military, Pub & Mun Affairs	Medical Affairs
3202	Requirements for Licensure as a Physical Therapist	Medical, Military, Pub & Mun Affairs	Medical Affairs
3196	S.C. National Guard College Assistance Program	Education and Public Works	Education
3206	Application, Renewal and Continuing Education	Medical, Military, Pub & Mun Affairs	Medical Affairs
3207	Board of Veterinary Medical Examiners Chapter Revision	Agriculture and Natural Resources	Labor, Commerce and Industry
3204	Licensing Standards for Continuing Care Retirement Communities	Medical, Military, Pub & Mun Affairs	Medical Affairs
3199	South Carolina Trauma Care Systems	Medical, Military, Pub & Mun Affairs	Medical Affairs

#### 4 COMMITTEE LIST OF REGULATIONS SUBMITTED TO GENERAL ASSEMBLY

**Committee Requested Withdrawal:**

3166	SCDOT Chief Internal Auditor	Education and Public Works	Transportation
3184	Restructuring ATF Regulations - Pyrotechnic Safety	Labor, Commerce and Industry	Labor, Commerce and Industry
3165	Transportation Project Prioritization	Education and Public Works	Transportation
3167	SCDOT Commission Approval of Actions	Education and Public Works	Transportation

**Permanently Withdrawn:**

3118	Mobile Dental Facilities and Portable Dental Operations	Medical, Military, Pub & Mun Affairs	Medical Affairs
3127	Chapter Revision		Medical Affairs

**Executive Order No. 2008-06**

**WHEREAS**, a vacancy exists in the office of Bamberg County Treasurer as a result of the resignation of Ann M. Clayton on April 30, 2008; and

**WHEREAS**, the undersigned is authorized to appoint a County Treasurer in the event of a vacancy pursuant to Sections 1-3-220(2), 4-11-20(1) and 12-45-20 of the South Carolina Code of Laws, as amended; and

**WHEREAS**, Mary Alice Johnson of 273 Leafcatcher Road, Denmark, South Carolina 29696, is a fit and proper person to serve as the Treasurer of Bamberg County

**NOW, THEREFORE**, pursuant to the authority vested in me by the Constitution and Statutes of this State, I hereby appoint Mary Alice Johnson as Treasurer of Bamberg County until the next general election and until her successor shall qualify.

**GIVEN UNDER MY HAND AND THE GREAT  
SEAL OF THE STATE OF SOUTH CAROLINA,  
THIS 30<sup>th</sup> DAY OF APRIL, 2008.**

**MARK SANFORD  
Governor**

## 6 NOTICES

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

#### NOTICE

In accordance with Section 44-7-200(C), Code of Laws of South Carolina, the public is hereby notified that a Certificate of Need application has been accepted for filing and publication May 23, 2008, for the following project(s). After the application is deemed complete, affected persons will be notified that the review cycle has begun. For further information, please contact Mrs. Sarah "Sallie" C. Harrell, Division of Planning and Certification of Need, 2600 Bull St., Columbia, SC 29201 at (803) 545-4200.

#### Affecting Beaufort County

Replacement of the existing mobile Positron Emission Tomography (PET) services with mobile Positron Emission Tomography/Computed Tomography (PET/CT) services  
Beaufort Memorial Hospital  
Beaufort, South Carolina  
Project Cost: \$379,500

#### Affecting Berkeley County

Addition of thirty (30) nursing home beds which will not participate in the Medicaid (Title XIX) Program for a total of one hundred thirty-five (135) nursing home beds and renovation and expansion of physical and occupational therapy space  
Heartland Health Care Center – Charleston  
Hanahan, South Carolina  
Project Cost: \$3,375, 220

#### Affecting Georgetown County

Addition of a mobile Positron Emission Tomography/Computerized Tomography (PET/CT) unit to provide service one (1) day per week on the campus of Waccamaw Community Hospital. The mobile services will be split between Waccamaw Community Hospital and Georgetown Memorial Hospital (SC-05-65) alternating services one (1) day per week between the two campuses  
Waccamaw Community Hospital  
Murrells Inlet, South Carolina  
Project Cost: \$415,527

#### Affecting Greenville County

Acquisition of surgical robotics equipment  
Bon Secours St. Francis Health System, Inc.  
Greenville, South Carolina  
Project Cost: \$2,477,960

#### Affecting Horry County

Replacement of the existing mobile Positron Emission Tomography (PET) unit with a mobile Positron Emission Tomography/Computed Tomography (PET/CT) unit to operate two (2) days per week  
Grand Strand Regional Medical Center  
Myrtle Beach, South Carolina  
Project Cost: \$847,598

## Affecting Richland County

Addition of two (2) nursing home beds which will not participate in the Medicaid (Title XIX) Program for a total of one hundred thirty-four (134) nursing home beds  
Heartland of Columbia Rehabilitation & Nursing Center  
Columbia, South Carolina  
Project Cost: \$40,260

## Affecting York County

Construction and renovation for the purchase and installation of one (1) 1.2T Open Magnetic Resonance Imaging (MRI) unit to replace the existing 0.3T MRI unit and renovation for the purchase and installation of one (1) sixteen (16) slice Computed Tomography (CT) unit to replace the existing dual-slice CT unit  
Carolinas Diagnostic Imaging, Inc.  
Fort Mill, South Carolina  
Project Cost: \$3,369,464

In accordance with S.C. DHEC Regulation 61-15, the public and affected persons are hereby notified that the review cycle has begun for the following project(s) and a proposed decision will be made within 60 days beginning May 23, 2008. "Affected persons" have 30 days from the above date to submit comments or requests for a public hearing to Mr. Les W. Shelton, Division of Planning and Certification of Need, 2600 Bull Street, Columbia, S.C. 29201. For further information call (803) 545-4200.

## Affecting Beaufort County

Renovation of existing space for the purchase and installation of a sixty-four (64) slice Computed Tomography (CT) scanner  
Hilton Head Regional Medical Center  
Hilton Head Island, South Carolina  
Project Cost: \$1,288,404

## Affecting Charleston County

Construction and renovation for the purchase and installation of a fixed Positron Emission Tomography/Computed Tomography (PET/CT) scanner and an Elekta Synergy S linear accelerator for a total of three (3) linear accelerators to be located at the Trident Cancer Center  
Trident Medical Center  
Charleston, South Carolina  
Project Cost: \$9,337,122

## Affecting Lancaster County

Conversion of eighteen (18) substance abuse beds to general acute care beds for a total of two hundred seventeen (217) acute care beds  
Springs Memorial Hospital  
Lancaster, South Carolina  
Project Cost: \$35,500

## 8 NOTICES

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

#### NOTICE

Notice of Cancellation and Rescheduling of Public Hearing  
Pursuant to S.C. Code Ann. Section 1-23-110

Pursuant to S.C. Code Ann. Section 1-23-110, the Department of Health and Environmental Control published a Notice of Proposed Regulation in the S.C. State Register as Document 3210 on March 28, 2008, to promulgate new Regulation 61-56.2, Licensing of Onsite Wastewater System Master Contractors. The Notice provided information on how interested persons could provide input on the proposed regulation at an informational forum that was conducted by Department staff on April 25, 2008, by submitting written comments during a public comment period that closed April 28, 2008, and/or by attending a public hearing that was scheduled before the Board of Health and Environmental Control (Board) on May 8, 2008. The public hearing for May 8 was cancelled and by this Notice is being rescheduled as provided below. Public comments received at the forum and during the public comment period as referenced above are being considered in formulating the final proposed regulation for consideration at the public hearing and will be submitted to the Board along with the Department's responses for public hearing.

#### Public Hearing:

The Board of Health and Environmental Control will conduct a public hearing on the proposed new R.61-56.2, Doc. 3210, on July 10, 2008. The hearing will be held at the regularly-scheduled Board meeting in the Board Room of the Commissioner's Suite, Third Floor, Aycock Building of the Department of Health and Environmental Control, 2600 Bull Street, Columbia, S.C. Please use the Bull Street entrance.

The Board meeting commences at 10:00 a.m. at which time the Board will consider items on its agenda in the order presented. The order of presentation of items on the agenda for July 10 will be noticed in the Board's agenda to be published by the Department 24 hours in advance of the meeting. Interested persons are invited to make oral or written comments on the proposed regulation revisions at the public hearing. Persons desiring to make oral comments at the hearing are asked to limit their statements to five minutes and, as a courtesy, are asked to provide written copies of their presentation to the Clerk of the Board for inclusion in the transcript of record of the public hearing. Any comments made at the public hearing will be given consideration in formulating the final version of the regulation revision.

### DEPARTMENT OF LABOR, LICENSING AND REGULATION OFFICE OF STATE FIRE MARSHAL

#### NOTICE OF GENERAL PUBLIC INTEREST

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 12, Standard on Carbon Dioxide Extinguishing Systems, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Rules and Regulations 71-8307.3(A)(9)



The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

**DEPARTMENT OF LABOR, LICENSING AND REGULATION  
OFFICE OF STATE FIRE MARSHAL**

**NOTICE OF GENERAL PUBLIC INTEREST**

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 25, Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Code of Laws 40-10-240(A)

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

**DEPARTMENT OF LABOR, LICENSING AND REGULATION  
OFFICE OF STATE FIRE MARSHAL**

**NOTICE OF GENERAL PUBLIC INTEREST**

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 30, Flammable and Combustible Liquids Code, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Code of Laws 39-41-260(A) and South Carolina Rules and Regulations 71-8300.11(C)(5), 71-8301.6, 71-8303.1

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

## 10 NOTICES

### DEPARTMENT OF LABOR, LICENSING AND REGULATION OFFICE OF STATE FIRE MARSHAL

#### NOTICE OF GENERAL PUBLIC INTEREST

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Code of Laws 39-41-260(A) and South Carolina Rules and Regulations 71-8303.1

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

### DEPARTMENT OF LABOR, LICENSING AND REGULATION OFFICE OF STATE FIRE MARSHAL

#### NOTICE OF GENERAL PUBLIC INTEREST

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 58, Liquefied Petroleum Gas Code, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Code of Laws 40-82-70

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

**DEPARTMENT OF LABOR, LICENSING AND REGULATION  
OFFICE OF STATE FIRE MARSHAL**

**NOTICE OF GENERAL PUBLIC INTEREST**

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 70, National Electrical Code, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Rules and Regulations 71-8300.10

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

**DEPARTMENT OF LABOR, LICENSING AND REGULATION  
OFFICE OF STATE FIRE MARSHAL**

**NOTICE OF GENERAL PUBLIC INTEREST**

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Rules and Regulations 71-8307.3(A)(9)(h)

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

## 12 NOTICES

### DEPARTMENT OF LABOR, LICENSING AND REGULATION OFFICE OF STATE FIRE MARSHAL

#### NOTICE OF GENERAL PUBLIC INTEREST

Notice is hereby given that, in accordance with Section 1-34-30 of the 1976 Code of Laws of South Carolina, as amended, the Department of Labor, Licensing and Regulation, Office of State Fire Marshal hereby adopts the latest edition of the following nationally recognized code.

1. National Fire Protection Association 2001, Clean Agent Fire Extinguishing Systems, 2008 Edition
2. The original promulgating authority for this code is: National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269
3. This code is referenced by: South Carolina Rules and Regulations 71-8307.3(A)(9)(i)

The Office of State Fire Marshal specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and received none. Therefore, the Office of State Fire Marshal hereby promulgates this latest edition without amendment.

**CLEMSON UNIVERSITY**  
**STATE CROP PEST COMMISSION**  
CHAPTER 27

Statutory Authority: 1976 Code Section 46-9-40

**Notice of Drafting:**

The State Crop Pest Commission is contemplating amending Regulation 27-75 concerning Plum Pox Virus. Plum Pox Virus, also known as Sharka disease, is a communicable disease of stone fruits, which include peaches, plums, cherries and apricots. Please address all comments to Dr. Chris Ray, Department of Plant Industry, 511 Westinghouse Road, Pendleton, SC 29670. To be considered, comments must be received no later than 5:00 PM on June 30, 2008, the close of the drafting comment period.

**Synopsis:**

Plum Pox Virus has been reported in the United States. It is a systemic disease of plants. The disease, once established, may be controlled only by complete destruction of the plant. It may pose a serious threat to the state's stone fruit industry.

Legislative review of this proposal will be required.

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
CHAPTER 61

Statutory Authority: 1976 Code Sections 44-1-165 et seq.

**Notice of Drafting:**

The Department of Health and Environmental Control proposes to promulgate a regulation to provide for an expedited process for permit application review. Interested persons may submit their views by writing to Mr. Carl W. Richardson, P.E., at 2600 Bull Street, Columbia, South Carolina, 29201. To be considered, written comments must be received no later than 5:00 p.m. on June 23, 2008, the close of the drafting comment period.

**Synopsis:**

S.C. Code Ann. Section 44-1-165 established an Expedited Review Program within the Department of Health and Environmental Control (Department) to provide an expedited process for permit application review. Participation in this program is voluntary and the program must be supported by expedited review fees promulgated in regulation pursuant to provisions of this section. The Department shall determine the project applications to review, and where determined appropriate by the Department, this process may be applied to any one or all of the permit programs administered by the Department.

The purpose of the proposed regulation is to implement the provisions required by statute. The regulation shall include, but is not limited to, definitions of "completeness" for applications submitted, consideration of joint federal-state permitting activities, standards for applications submitted that advance environmental protection, and expedited process application review fees.

This regulation will require legislative review.

## 14 DRAFTING

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL CHAPTER 61

Statutory Authority: 1976 Code Sections 44-7-110 et seq.

#### **Notice of Drafting:**

The Department of Health and Environmental Control proposes to amend specific sections of Regulation 61-84, Standards For Licensing Community Residential Care Facilities. Interested persons may submit written comments to Dennis L. Gibbs, Director, Division of Health Licensing, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201. To be considered, all comments must be received no later than 5:00 p.m. on June 24, 2008, the close of the drafting comment period.

#### **Synopsis:**

The Department proposes to amend specific sections of Regulation 61-84, to be limited to the revision/update of those sections relating to 1) the living quarters in the facility for individuals other than residents (Section 103.G); 2) the fiscal responsibilities of the facility licensee (Section 103.K); 3) license fees (Section 103.L); 4) licensee notice of intent to sell the facility (Section 103.O); 5) the facility documentation of compliance with the standards (Section 202); 6) a criminal background check for direct care staff (Section 501.B); 7) training documentation and staff verification (Section 504.A); 8) the facility administrator responsibilities (Section 604); 9) the facility telephone communications requirements (Section 1001.L); 10) medication packaging and availability (Section 1205.B); 11) discontinued resident medication disposition (Section 1207.B.2); 12) menu approvals by the resident's physician (Section 1306.A); 13) facility staff use of alcohol-based hand sanitizers (Section 1309); 14) facility 'no smoking' areas (Section 2207); and 15) barriers to natural or manmade bodies of water on or adjacent to the facility property (Section 2717).

The Department is soliciting comments on: the living quarters in the facility for individuals other than residents under Section 103.G; the fiscal responsibilities of the facility licensee under Section 103.K; facility licensing fees under Section 103.L; licensee notice of intent to sell, Section 103.O; facility documentation of compliance with the standards under Section 202; criminal background checks under Section 501.B; training documentation and staff verification under Section 504.A; facility administrator responsibilities under Section 604; facility telephone communications requirements under Section 1001.L; medication packaging and availability under Section 1205.B; discontinued resident medication disposition under Section 1207.B.2; menu approvals by the resident's physician under Section 1306.A; facility staff use of alcohol-based hand sanitizers under Section 1309; facility 'no smoking' areas under Section 2207; and barriers to natural or manmade bodies of water on or adjacent to the facility property under Section 2717.

Legislative review of this amendment is required.

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL CHAPTER 61

Statutory Authority: 1976 Code Sections 44-7-110 et seq.

#### **Notice of Drafting:**

The Department of Health and Environmental Control proposes to amend specific sections of Regulation 61-17, Standards For Licensing Nursing Homes. Interested persons may submit written comments to Dennis L. Gibbs, Director, Division of Health Licensing, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201. To be considered, all comments must be received no later than 5:00 p.m. on June 24, 2008, the close of the drafting comment period.

**Synopsis:**

The Department proposes to amend specific sections of Regulation 61-17, to be limited to the revision/update of those sections relating to license application fees, Section A.(2)(e), specifically addressing facility licensing fees.

The Department is soliciting comments on facility licensing fees under Section A.(2)(e).

Legislative review of this amendment is required.

**DEPARTMENT OF REVENUE**  
CHAPTER 117  
Statutory Authority: 1976 Code Section 12-4-320

**Notice of Drafting:**

The South Carolina Department of Revenue is considering amending SC Regulation 117-1350 concerning the deed recording fee to incorporate longstanding Department of Revenue policy concerning common real estate transactions and deed recording fee issues. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #04-6 – and the Department’s deed recording fee manual.

Interested persons may submit written comments to Meredith F. Cleland, South Carolina Department of Revenue, Legislative Services, P.O. Box 125, Columbia, SC 29214. To be considered, comments must be received no later than 5:00 p.m. on June 24, 2008.

**Synopsis:**

The South Carolina Department of Revenue is considering amending SC Regulation 117-1350 concerning the deed recording fee to incorporate longstanding Department of Revenue policy concerning common real estate transactions and deed recording fee issues. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #04-6 – and the Department’s deed recording fee manual.

**DEPARTMENT OF REVENUE**  
CHAPTER 117  
Statutory Authority: 1976 Code Section 12-4-320

**Notice of Drafting:**

The South Carolina Department of Revenue is considering amending SC Regulation 117-333 concerning the application of the sales tax to donors of tangible personal property and to purchasers of tangible personal property that will be awarded as prizes or that will be given-away for advertising purposes. The proposed regulation will not change these provisions; however, the proposed regulation will incorporate longstanding Department of Revenue policy concerning gifts shipped by the retailer on behalf of the purchaser. Specifically, this addition to the regulation will address the retailer’s liability or responsibility for remitting the sales or use tax on such transactions when the retailer has nexus with South Carolina and where one or more of the parties ((a) retailer, (b) the purchaser or donor of the gift, and (c) the recipient or donee of the gift) is located outside of South Carolina. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #03-3.

## 16 DRAFTING

Interested persons may submit written comments to Meredith F. Cleland, South Carolina Department of Revenue, Legislative Services, P.O. Box 125, Columbia, SC 29214. To be considered, comments must be received no later than 5:00 p.m. on June 24, 2008.

### **Synopsis:**

The South Carolina Department of Revenue is considering amending SC Regulation 117-333 concerning the application of the sales tax to donors of tangible personal property and to purchasers of tangible personal property that will be awarded as prizes or that will be given-away for advertising purposes. The proposed regulation will not change these provisions; however, the proposed regulation will incorporate longstanding Department of Revenue policy concerning gifts shipped by the retailer on behalf of the purchaser. Specifically, this addition to the regulation will address the retailer's liability or responsibility for remitting the sales or use tax on such transactions when the retailer has nexus with South Carolina and where one or more of the parties ((a) retailer, (b) the purchaser or donor of the gift, and (c) the recipient or donee of the gift) is located outside of South Carolina.

### **DEPARTMENT OF REVENUE**

#### **CHAPTER 117**

Statutory Authority: 1976 Code Section 12-4-320

### **Notice of Drafting:**

The South Carolina Department of Revenue is considering adding SC Regulation 117-314.11 concerning the application of the sales and use tax exemption in Code Section 12-36-2120(29) to incorporate longstanding Department of Revenue policy concerning federal government construction contracts into SC Regulation 117-314. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #04-9.

Interested persons may submit written comments to Meredith F. Cleland, South Carolina Department of Revenue, Legislative Services, P.O. Box 125, Columbia, SC 29214. To be considered, comments must be received no later than 5:00 p.m. on June 24, 2008.

### **Synopsis:**

The South Carolina Department of Revenue is considering adding SC Regulation 117-314.11 concerning the application of the sales and use tax exemption in Code Section 12-36-2120(29) to incorporate longstanding Department of Revenue policy concerning federal government construction contracts into SC Regulation 117-314. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #04-9.



Document No. 3133  
**DEPARTMENT OF AGRICULTURE**  
CHAPTER 5  
Statutory Authority: 1976 Code Section 39-9-70

5-500 et seq. Weights and Measures Regulations

**Synopsis:**

The Department of Agriculture proposes these amendments to clarify and to provide more uniform standards of measurement for products sold by weight. The majority of the provisions specific to South Carolina have been deleted, and national weight and measurement standards have been adopted by statute. Using uniform, national recognized standards for products sold by weight and other forms of measurement, allows greater ease of products crossing state borders and ensures that South Carolina consumers have access to similar products sold around the nation.

**Instructions:** Amend R.5-500 thru 5-570, Weights and Measures Regulations, Chapter 5 to reflect the following changes:

1. Replace R-5-500 with the language below.
2. Delete R-5-510.
3. Delete R-5-511.
4. Delete R-5-512.
5. Delete R-5-513.
6. Delete R-5-514.
7. Delete R-5-515.
8. Delete R-5-516.
9. Delete R-5-517.
10. Delete R-5-520.
11. Delete R-5-521.
12. Delete R-5-522.
13. Delete R-5-523.
14. Delete R-5-530.
15. Delete R-5-531.
16. Delete R-5-532.
17. Delete R-5-533.
18. Delete R-5-534.
19. Delete R-5-535.
20. Delete R-5-536.
21. Delete R-5-537.
22. Delete R-5-538.
23. Delete R-5-539.
24. Delete R-5-540.
25. Delete R-5-550.
26. Delete R-5-551.
27. Delete R-5-552.
28. Delete R-5-553.
29. Delete R-5-554.
30. Delete R-5-555.
31. Delete R-5-556.
32. Delete R-5-557.
33. Delete R-5-558.
34. Delete R-5-559.

## 18 FINAL REGULATIONS

35. Delete R-5-560.
36. Delete R-5-570.
37. Add R-5-571 with language below.
38. Add R-5-572 with language below.

### Text:

5-500. Standard Weights of Commodities. The following shall be the legal and uniform standard weights and measures in South Carolina for the sale and purchase of the following named products of the farm, orchard, or garden and articles of merchandise:

COMMODITY	POUNDS PER BUSHEL
Apples, dried .....	24
Apples, green .....	45
Barley .....	48
Beans, dried .....	60
Beans, green, in pods .....	28
Beets .....	50
Bell pepper, small .....	30
Bell pepper, large .....	26
Blackberries .....	48
Cane Seed .....	50
Carrots .....	50
Clover seed, red and white .....	60
Corn, green, with shucks .....	100
Corn, in ear, shucked .....	70
Corn, in ear, with shucks .....	74
Corn, shelled .....	56
Cornmeal .....	48
Cottonseed .....	30
Cucumbers, large .....	40
Cucumbers, small .....	50
Currants .....	40
Eggplant .....	50
Flaxseed .....	56
Grapes, with stems .....	48
Grapes, without stems .....	60
Kaffir corn .....	56
Melon, cantaloupe .....	50
Millet, seed .....	50
Oats, seed .....	32
Okra, small .....	40
Okra, medium .....	30
Onions, button sets .....	32
Onions, matured .....	56
Onions, top buttons .....	28
Orchard grass .....	14
Parsnips .....	50
Peaches, dried .....	25
Peaches, matured .....	50
Peanuts, dry .....	22
Peanuts, Spanish, dried .....	30
Pears, dried .....	26

Pears, matured ..... 36  
 Peas, dried ..... 60  
 Peas, green, in hull ..... 28  
 Plums ..... 64  
 Potatoes, Irish . ..... 60  
 Potatoes, Sweet ..... 50  
 Raspberries ..... 48  
 Rutabagas ..... 60  
 Rye Grass, Italian, seed ..... 20  
 Rye seed ..... 56  
 Salads, mustard, spinach ..... 16  
 Salads, turnips, kale ..... 16  
 Sorghum seed ..... 50  
 Soybeans, ungraded ..... 60  
 Strawberries ..... 48  
 Tomatoes, red or ripe ..... 56  
 Tomatoes, green or pink ..... 48  
 Turnips ..... 50  
 Wheat ..... 60

Any article of produce from garden or farm not mentioned in the above shall be the same standard per bushel or per gallon as adopted and approved by the United States Government.

- 5-510. Berries and Small Fruits [delete]
- 5-511. Butter, Oleomargarine, and Margarine. [delete]
- 5-512. Flour, Corn Meal, and Hominy Grits. [delete]
- 5-513. Meat, Poultry, and Seafood. [delete]
- 5-514. Fluid Milk Products. [delete]
- 5-515. Other Milk Products. [delete]
- 5-516. Pickles. [delete]
- 5-517. Standard Weights and Sizes of Loaves of Bread. [delete]
- 5-520. Coatings. [delete]
- 5-521. Sealants. [delete]
- 5-522. Peat and Peat Moss. [delete]
- 5-523. Roofing and Roofing Material. [delete]
- 5-530. Application. [delete]
- 5-531. Definitions. [delete]
- 5-532. Identity. [delete]

## 20 FINAL REGULATIONS

5-533. Declaration of Responsibility: Consumer and Nonconsumer Packages. [delete]

5-534. Declaration of Quantity: Consumer Packages. [delete]

5-535. Declaration of Quantity: Nonconsumer Packages. [delete]

5-536. Prominence and Placement: Consumer Packages. [delete]

5-537. Prominence and Placement: Nonconsumer Packages. [delete]

5-538. Requirements: Specific Consumer Commodities, Packages, Containers. [delete]

5-539. Exemptions. [delete]

5-540. Variations to be Allowed. [delete]

5-550. Definitions. [delete]

5-551. Policy. [delete]

5-552. Reciprocity. [delete]

5-553. Registration Fee. [delete]

5-554. Voluntary Registration. [delete]

5-555. Certificate of Registration. [delete]

5-556. Privileges of a Voluntary Registrant. [delete]

5-557. Placed in Service Report. [delete]

5-558. Standards and Testing Equipment. [delete]

5-559. Revocation of Certificate of Registration. [delete]

5-560. Publication of Lists of Registered Servicemen. [delete]

5-570. Sale or Distribution of Bulk Meat. [delete]

5-571. Prohibit Acts and Exemptions.

The Department determines devices in service prior to January 1, 1995 qualify for the exemptions listed in the Uniform National Type Evaluation Regulations, handbook 130, Section 4.

5-572. Definition of Director.

For the purposes of carrying out the provisions under the Uniform National Type Evaluation Regulations, the term "Director" shall mean the Commissioner of Agriculture for the South Carolina Department of Agriculture.

**Fiscal Impact Statement:**

The South Carolina Department of Agriculture estimates that there will be no anticipated additional costs to the State or its political subdivisions regarding the implementation and update of standards used by the Department for the regulation and administration of the Weights and Measures program.

**Statement of Rationale:**

The purpose of this proposal is to improve and update Regulation 5-500 et seq., concerning the standards used by the Department, as well as the administration of the South Carolina Weights and Measures program, S.C. Code section 39-9-70. These amendments are intended to provide uniform standards and guidance for the Department related to the Uniform Weights and Measures Law, section 39-9-10 et al. This proposal is reasonable in that it is the Department's responsibility and duty to implement regulations that are required by law, and to update them so that they remain consistent with the law.

Document No. 3175

**BUDGET AND CONTROL BOARD****CHAPTER 19**

Statutory Authority: 1976 Code Section 11-35-10 et seq.

19-445. South Carolina Procurement Regulations

**Synopsis:**

The Consolidated Procurement Code authorizes the State Budget and Control Board to promulgate regulations governing the procurement, management, control, and disposal of any and all supplies, services, information technology, and construction to be procured by the State and any other regulations relating to implementation of Title 11, Chapter 35. (Sections 11-36-60 & -540(1)) These regulations are proposed to clarify and improve the procedures used in procurement. The proposed changes also adapt the regulations to proposed legislative changes (S. 282 of 2007). If enacted, the proposed changes to the regulations would: allow the furnishing of source selection information to the Office of the State Engineer; provide that it is not practicable or advantageous to the State to procure guaranteed energy, water, or wastewater saving contracts by competitive sealed bidding; set forth standards for determining the appropriate project delivery method for construction projects; update references to standard industry form contract documents used on design-bid-build projects and provide that the Manual for Planning and Execution of State Permanent Improvements – Part II shall specify the edition of these forms to be used; permit adoption of other contract forms not specified in the regulation or otherwise required by law by publication in the Manual for Planning and Execution of State Permanent Improvements – Part II; provide for the future adoption of contract forms for alternative project delivery methods; require procurement offices to consider whether a contractor who provides a report or study will have a competitive edge in a subsequent procurement and to take appropriate steps to eliminate or mitigate the advantage; establishes important best practices for procuring such services by competitive sealed proposals by setting standards for the contents of a request for proposals, including design requirements and evaluation factors; require a solicitation to include any requirements for errors and omissions insurance; address performance bonds or letters of credit covering the operations period performance requirements; provide standards for soliciting CMR services and evaluating proposals; modify the Surplus Property Regulations to conform to present organizational structure, address electronic sales and clarify the definition of junk.

**Instructions:** The following items or sections of Regulation 19-445 are added, deleted, or modified as provided below. All other items and sections remain unchanged.

~~Indicates Matter Stricken~~

Indicates New Matter

## 22 FINAL REGULATIONS

### Text:

19-445.2010. Disclosure of Procurement Information.

A. - C. [Remains the same.]

D. Throughout the competitive sealed proposal process, state ~~and non-state~~ personnel with access to proposal information shall not disclose either the number of offerors or their identity, except as otherwise required by law.

E. - G. [Remains the same.]

H. Subject to item (E), any person may furnish source selection information to the Office of the State Engineer. The procurement officer shall provide to the Office of the State Engineer any information it requests regarding a procurement.

19-445.2095. Competitive Sealed Proposals.

A. - E. [Remains the same.]

F. Specified Types of Construction.

Consistent with Section 48-52-670, which allows the use of competitive sealed proposals, it is generally not practicable or advantageous to the State to procure guaranteed energy, water, or wastewater savings contracts by competitive sealed bidding. Pursuant to Section 11-35-3020(1), and subject to the approval requirements of Section 11-35-3010, construction may be procured by competitive sealed proposals as follows:

- ~~(1) Architect/Engineer services and construction services to be awarded in the same contract for an indefinite delivery of a specialized service (e.g. Hazardous waste remedial action).~~
- ~~(2) Design/Build or Lease Purchase contracts where there must be selection criteria in addition to price.~~
- ~~(3) Energy conservation or other projects to be financed by vendors who will be paid from the State's savings.~~
- ~~(4) Construction, where consideration of alternative methods or systems would be advantageous to the State.~~

G. - J. [Remains the same.]

19-445.2132. Prequalification for a Single Solicitation.

A. [Remains the same.]

B. Receipt and Safeguarding of Responses

Prior to opening submittals received in response to a request for prequalification, the provisions of Regulation 19-445.2045 shall apply to the receipt and safeguarding of all such submittals received in response to a request for qualifications conducted pursuant to Sections 11-35-1520 or 11-35-1530.

19-445.2145. Construction, Architect Engineer, Construction Management, and Land Surveying Services.

### A. Definitions

(1) Designer, as used in these regulations, means a person who has been awarded, through the qualifications-based process set forth in Section 11-35-3220, a contract with the State for the design of any infrastructure facility using the design-bid-build project delivery method defined in Section 11-35-2910(6).

(2) Builder, as used in these regulations, means a person who has been awarded, through competitive sealed bidding, a separate contract with the State to construct (alter, repair, improve, or demolish) any infrastructure facility using the design-bid-build project delivery method defined in Section 11-35-2910(6).

(3) Design-Builder, as used in these regulations, means a person who has been awarded a contract with the State for the design and construction of any infrastructure facility using the design-build project delivery method defined in Section 11-35-2910(7).

(4) DBO Producer, as used in these regulations, means a person who has been awarded a contract with the State for the design, construction, operation, and maintenance of any infrastructure facility using the design-build-operate-maintain project delivery method defined in Section 11-35-2910(9).

(5) DBFO Producer, as used in these regulations, means a person who has been awarded a contract with the State for the design, construction, finance, operation, and maintenance of any infrastructure facility using the design-build-finance-operate-maintain project delivery method defined in Section 11-35-2910(8).

(6) Guaranteed Maximum Price (GMP) means a price for all costs for the construction and completion of the project, or designated portion thereof, including all construction management services and all mobilization, general conditions, profit and overhead costs of any nature, and where the total contract amount, including the contractor's fee and general conditions, will not exceed a guaranteed maximum amount.

(7) Independent Peer Reviewer means a person who has been awarded a contract with the State for an independent, contemporaneous, peer review of the design services provided to the State by a DBO or DBFO Producer. In the event the State does not elect to contract with the Independent Peer Reviewer proposed by the successful DBO or DBFO Producer, the Independent Peer Reviewer shall be selected as provided in Section 11-35-2910(11).

(8) Operator, as used in these regulations, means a person who has been awarded, through competitive sealed bidding, a separate contract with the State for the routine operation, routine repair, and routine maintenance (Operation and Maintenance) of any infrastructure facility, as defined in Section 11-35-2910(13).

#### BA. Choice of Project Delivery Method~~Method of Construction Contract Administration.~~

(1) This Subsection contains provisions applicable to the selection of the appropriate project delivery method of administration for constructing infrastructure facilities construction contracts, that is, the contracting method of configuring and administering construction projects and configuration which is most advantageous to the State and will result in the most timely, economical, and otherwise successful completion of the infrastructure facility construction project. The governmental body shall have sufficient flexibility in formulating the project delivery approach on a particular project to fulfill the State's needs. Before choosing the project delivery method, a careful assessment must be made of requirements the project must satisfy and those other characteristics that would be in the best interest of the State.

(2) Selecting An Appropriate Project Delivery Method~~the Method of Construction Contracting.~~  
In selecting an appropriate project delivery method for each of the State's Infrastructure Facilities ~~the construction contracting method~~, the governmental body should consider the results achieved on similar projects in the past and the methods used. Consideration should be given to all authorized project delivery methods, the comparative advantages and disadvantages of each, and how these methods may be appropriately configured and applied to fulfill State requirements. Additional factors to consider include: all appropriate and effective methods and their comparative advantages and disadvantages and how they might be adapted or combined to fulfill state requirements.

#### (2) Flexibility:

The governmental body, shall have sufficient flexibility in formulating the project delivery approach on a particular project to fulfill the State's needs. In each instance, consideration should be given to all the appropriate and effective means of obtaining both the design and construction of the project.

#### (3) Criteria for Selection:

(a) the extent to which the governmental body's design requirements for the Infrastructure Facility are known, stable, and established in writing; Before choosing the construction contracting method, a careful assessment must be made by the purchasing agency of requirements the project must satisfy and those other characteristics that would be in the best interest of the State.

(b) the extent to which qualified and experienced State personnel are available to the governmental body to provide the decision-making and administrative services required by the project delivery method selected;

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(c) the extent to which decision-making and administrative services may be appropriately assigned to designers, builders, construction-managers at-risk, design-builders, DBO producers, DBFO producers, peer reviewers, or operators, as appropriate to the project delivery method;

(d) the extent to which outside consultants, including construction manager agent, may be able to assist the governmental body with decision-making and administrative contributions required by the project delivery method;

(e) the governmental body's projected cash flow for the Infrastructure Facility to be acquired (both sources and uses of the funds necessary to support design, construction, operations, maintenance, repairs, and demolition over the facility life cycle);

(f) the type of infrastructure facility or service to be acquired – for example, public buildings, schools, water distribution, wastewater collection, highway, bridge, or specialty structure, together with possible sources of funding for the infrastructure facility – for example, state or federal grants, state or federal loans, local tax appropriations, special purpose bonds, general obligation bonds, user fees, or tolls;

(g) the required delivery date of the infrastructure facility to be constructed;

(h) the location of the infrastructure facility to be constructed;

(i) the size, scope, complexity, and technological difficulty of the infrastructure facility to be constructed;

(j) the State's current and projected sources and uses of public funds that are currently generally available (and will be available in the future) to support operation, maintenance, repair, rehabilitation, replacement, and demolition of existing and planned infrastructure facilities;

(k) and, any other factors or considerations specified in the Manual for Planning of Execution of State Permanent Improvements, Part II, or as otherwise requested by the State Engineer.

~~(b) The amount and type of financing available for the project is relevant to the selection of the appropriate construction contracting method including what sources of funding are available.~~

~~(e) The governmental body should consider whether a price can be obtained that is fair and reasonable when considered together with the benefit to the State potentially obtainable from such a contract.~~

(3) Except for guaranteed energy, water, or wastewater savings contracts (Section 48-52-670), design-bid-build (acquired using competitive sealed bidding) is hereby designated as an appropriate project delivery method for any infrastructure facility and may be used by any governmental body without further project specific justification.

### (4) Governmental Body Determination.

The head of the governmental body shall make a written determination that must be reviewed by the State Engineer~~Chief Procurement Officer~~. The determination shall describe the project delivery method (Section 11-35-3005), source selection method (Section 11-35-3015 and 11-35-1510), any additional procurement procedures (11-35-3023 and 11-35-3024(2)(c)), and types of performance security (Sections 11-35-3030 and 11-35-3037)~~construction contracting method chosen~~ selected and set forth the facts and considerations leading~~which led~~ to those selections~~of that method~~. This determination shall demonstrate either reliance on paragraph (3) above, or that the considerations identified in paragraphs (1) and (2) above, as well as the requirements and financing of the project, were all considered in making the selection. Any determination to use a project delivery method other than design-bid-build must explain why the use of design-bid-build is not practical or advantageous to the State. Any determination to use any of the additional procedures allowed by Section 11-35-3024(2)(c) must explain why the use of such procedures are in the best interests of the State. Any request to use the prequalification process in a design-bid-build procurement must be in writing and must set forth facts sufficient to support a finding that pre-qualification is appropriate and that the construction involved is unique in nature, over ten million dollars in value, or involves special circumstances. No written determination is required for projects with a total potential value of less than ten million dollars if (i) the project delivery method is design bid build, and (ii) the source selection method is competitive sealed bidding, and (iii) the contract amount is a fixed price.

### B. Construction Procurement – The Invitation for Bids.

The provisions of Regulation 19-445.2040 shall apply to implement the requirements of Section 11-35-3020(2)(a), Invitation for Bids.



## C. Bonds and Security.

(1) Bid Security. Bid Security shall be a certified cashier's check or a bond, in a form to be specified in the Manual for Planning and Execution of State Permanent Improvements - Part II, provided by a surety company licensed in South Carolina with an "A" minimum rating of performance as stated in the most current publication of "Best Key Rating Guide, Property Liability", which company shows a financial strength rating of at least five (5) times that portion of the contract price that does not include operations, maintenance, and finance. In the case of a construction contract under \$100,000, the agency may, upon written justification and with the approval of the Office of the State Engineer, allow the use of a "B+" rated bond when bid security is required. Each bond shall be accompanied by a "Power of Attorney" authorizing the attorney in fact to bind the surety.

(2) Contract Performance and Payment Bonds. The contractor shall provide a certified cashier's check in the full amount of the Performance and Payment Bonds or may provide, and pay for the cost of, Performance and Payment Bonds in a the form to be specified in the Manual for Planning and Execution of State Permanent Improvements-Part II of AIA Document A311 "PERFORMANCE BOND AND LABOR AND MATERIAL BOND". Each bond shall be ~~in the full amount of the Contract Sum,~~ issued by a Surety Company licensed in South Carolina with an "A" minimum rating of performance as stated in the most current publication of "Best Key Rating Guide, Property Liability", which company shows a financial strength rating of at least five (5) times that portion of the contract price that does not include operations, maintenance, and finance. In the case of construction under \$50,000, the agency may, upon written justification and with the approval of the Office of the State Engineer, allow the use of a "B+" rated bond when bid security is required. Each bond shall be accompanied by a "Power of Attorney" authorizing the attorney in fact to bind the surety.

D. [Remains the same.]

## E. Contract Forms.

(1) Pursuant to Section 11-35-2010(2), the following contract forms shall be used as applicable, as amended by the State Engineer, and as provided in the Manual for Planning and Execution of State Permanent Improvements-Part II. Subject to the foregoing:

(a) If an agency conducts a competitive sealed bid to acquire construction independent of architect-engineer or construction management services, the governmental body may use a document in the form of AIA Document A701.

(b) If an agency acquires architect-engineer services independent of construction, the governmental body may use a document in the form of AIA Document B151.

(c) If an agency acquires construction independent of architect-engineer or construction management services, the governmental body may use documents in the form of AIA Document A101 and A201. Other contract forms may be used as are approved by the State Engineer.

(d) If an agency acquires architect-engineer services, construction management services, and construction on the same project, each under separate contract, the governmental body may use documents in the form of AIA Documents A101/CMA, A201/CMA, B141/CMA, and B801/CMA. This paragraph does not apply if an agency acquires both construction and construction management services from the same business under the same contract.

(2) With prior approval of the State Engineer, a governmental body may supplement the contract forms identified in paragraph (1), as they have been amended by the State Engineer.

(3) Paragraph (1) does not apply to a contract entered into pursuant to Sections 11-35-1530, 11-35-1550, 11-35-3230, or 11-35-3310.

(4) For any contract forms specified herein, the Manual for Planning and Execution of State Permanent Improvements-Part II shall specify the appropriate edition or, if applicable, replacement form.

(5) For any contract forms not specified herein or otherwise required by law, the Manual for Planning and Execution of State Permanent Improvements-Part II may, without limitation, require the use of any appropriate contract document, standard industry contract form, standard state amendments to such documents or forms, or publish state specific contract forms. Absent contrary instructions in the Manual, the governmental body may use a contract written for an individual project.

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Pursuant to Code Section 11-35-2010(2), the following Contract Forms, whose AIA Edition, if any, is designated in the Manual for Planning and Execution of State Permanent Improvement Part II, shall be used, as applicable.

(1) Contracts for Services may be as follows:

(a) Land surveyor: The agency may use a letter contract written for each individual project. The format and description of services shall be approved by the State Engineer.

(b) Architect Engineer: The agency may use AIA Document B141, with Article 12, Other Conditions or Services as prepared by the State Engineer and Article 13 prepared by the agency or Architect Engineer.

(c) Architect Engineer/Construction Management: For the Architect Engineer, the agency may use B141/CM, with Article 15 prepared by the State Engineer and Article 16 prepared by the agency or Architect Engineer. For the managers, it may use AIA Document B801, with Article 16 prepared by the State Engineer and Article 17 prepared by the agency or construction manager.

(d) Construction: the agency may use AIA Document A101, 1987 Edition or AIA Document A101/CM. Other contract forms may be used as are approved by the State Engineer.

(e) For Contracts under Procurement Code Section 11-35-3230, the agency may use a letter contract written for each individual project. The format and description of services shall be as approved by the State Engineer.

(f) For Construction under Procurement Code Section 11-35-1550, the agency may use a letter contract written for each individual project. The format and description of services shall be as approved by the State Engineer.

(2) Bidding Documents may be as follows:

(a) Instruction to bidders may be AIA Document A701, with Article 9 prepared by the State Engineer and Article 10 prepared by the agency or Architect Engineer.

(b) General Conditions of the Contract for Construction may be AIA Document A201, with Supplementary Conditions Part 2 prepared by the agency or Architect Engineer; or AIA A201/CM, with Supplementary Conditions Part 1 prepared by the state Engineer and Supplementary Conditions Part 2 prepared by the agency or Architect Engineer/Construction Manager.

(c) Bid Form and Change Order prepared by the State Engineer may be used.

(d) [None]

(e) Construction under Procurement Code Section 11-35-1550 and 11-35-1530 may be in a format and description of services approved by the State Engineer.

F. Manual for Planning and Execution of State Permanent Improvements Projects ~~Part II~~.

For the purpose of these Regulations and Code Section 11-35-3240, a manual of procedures to be followed by governmental bodies for planning and execution of state permanent improvement projects is prepared and furnished by the designated board office, and included in this regulation. Part II of this manual, covering the procurement of construction for the projects, will be the responsibility of the Office of the State Engineer.

G. Prequalifying Construction Bidders.

In accordance with Section 11-35-~~3023~~~~4825~~, the State Engineer's Office shall develop a procedures for a prequalification process and a list of criteria for prequalifying construction bidders and sub-bidders, and shall include it in the Manual for Planning and Execution of State Permanent Improvements-Part II. The provisions of Regulation 19-445.2132 shall apply to implement Section 11-35-3023.

H. [Remains the same.]

I. Construction Procurement—The Invitation for Bids.

The provisions of Regulation 19-445.2040 shall apply to implement the requirements of Section 11-35-3020(a), Invitation for Bids. The provisions of Regulation 19-445.2090(B) shall not apply to implement the requirements of Code Section 11-35-3020.

J. Participation in Prior Reports or Studies.

(1) Before awarding a contract for a report or study that could subsequently be used in the creation of design requirements for an infrastructure facility or service, the procurement officer should address, to the extent practical, the contractor's ability to compete for follow-on work.

(2) Before issuing a request for proposals for an infrastructure facility or service, the procurement officer should take reasonable steps to determine if prior participation in a report or study could provide a firm with a substantial competitive advantage, and, if so, the procurement officer should take appropriate steps to eliminate or mitigate that advantage.

(3) In complying with items (1) and (2) above, the procurement officer shall consider the requirements of Section 11-35-3245 and the Manual for Planning and Execution of State Permanent Improvements, Part II.

K. Additional Procedures for Design-Build; Design-Build-Operate-Maintain; and Design-Build-Finance-Operate-Maintain.

(1) Content of Request for Proposals. Each request for proposals (RFP) issued by the State for design-build, design-build-operate-maintain, or design-build-finance-operate-maintain services shall contain a cover sheet that: (a) confirms that design requirements are included in the RFP, (b) confirms that proposal development documents are solicited in each offeror's response to the RFP, and (c) states the governmental body's determination for that procurement (i) whether offerors must have been pre-qualified through a previous request for qualifications; (ii) whether the governmental body will select a short list of responsible offerors prior to discussions and evaluations (along with the number of proposals that will be short-listed); and (iii) whether the governmental body will pay stipends to unsuccessful offerors (along with the amount of such stipends and the terms under which stipends will be paid).

(2) Purpose of Design Requirements. The purpose and intent of including design requirements in the RFP is to provide prospective and actual offerors a common, and transparent, written description of the starting point for the competition and to provide the State with the benefit of having responses from competitors that meet the same RFP requirements. In order to be effective, the governmental body must first come to understand and then to communicate its basic requirements for the infrastructure facility to those who are considering whether they will participate in the procurement competition.

(3) Purpose of Requirement for Proposal Development Documents. The purpose and intent of including the requirement for submittal of proposal development documents in each RFP for design-build, design-build-operate-maintain, or design-build-finance-operate-maintain is to provide actual offerors with a common, and transparent, written description of the finish point for the competition. To be responsive, each offeror must submit drawings and other design related documents that are sufficient to fix and describe the size and character of the infrastructure facility to be acquired, including price (or life-cycle price for design-build-operate-maintain and design-build-finance-operate-maintain procurements).

(4) Content of Request for Proposals: Evaluation Factors. Each request for proposals for design-build, design-build-operate-maintain, or design-build-finance-operate-maintain shall state the relative importance of (1) demonstrated compliance with the design requirements, (2) offeror qualifications, (3) financial capacity, (4) project schedule, (5) price (or life-cycle price for design-build-operate-maintain and design-build-finance-operate-maintain procurements), and (6) other factors, if any by listing the required factors in descending order of importance (without numerical weighting), or by listing each factor along with a numerical weight to be associated with that factor in the governmental body's evaluation. Subfactors, if any, must be stated in the RFP and listed, pursuant to the requirements of this Regulation, either in descending order, or with numerical weighting assigned to each subfactor. The purpose and intent of disclosing the relative importance of factors (and subfactors) is to provide transparency to prospective and actual competitors from the date the RFP is first published.

(5) The Manual for Planning and Execution of State Permanent Improvement Projects - Part II must include guidelines for the proper drafting of design requirements, proposal development documents, and requests for proposals.

L. Errors and Omissions Insurance.

(1) For design services in design-bid-build procurements. A governmental body shall include in the solicitation such requirements as the procurement officer deems appropriate for errors and omissions insurance

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(commonly called “professional liability insurance” in trade usage) coverage of architectural and engineering services in the solicitation for design services in design-bid-build procurements.

(2) For design services to be provided as part of design-build procurements. A governmental body shall include in the solicitation for design-build such requirements as the procurement officer deems appropriate for errors and omissions insurance coverage of architectural and engineering services to be provided as part of such procurements. Prior to award, the head of a governmental body, or his delegee, shall review and approve the errors and omissions insurance coverage for all design-build contracts in excess of \$25,000,000.

(3) For design services to be provided as part of design-build-operate-maintain and design-build-finance-operate-maintain procurements. A governmental body shall include in the solicitation for design-build-operate-maintain and design-build-finance-operate-maintain such requirements as the procurement officer deems appropriate for errors and omissions insurance coverage of architectural and engineering services to be provided as part of such procurements. Prior to award, the head of a governmental body, or his delegee, shall review and approve the errors and omissions insurance coverage for all design-build-operate-maintain and design-build-finance-operate-maintain contracts in excess of \$25,000,000.

(4) For Construction Management (Agency) services. A governmental body shall include in the solicitation for construction management agency services such requirements as the procurement officer deems appropriate for errors and omissions insurance coverage.

(5) Errors and omissions (or professional liability) insurance coverage for construction management services is typically not required when the governmental body is conducting a construction management at-risk procurement.

### M. Other Security; Operations Period Performance Bonds.

#### (1) Purpose.

To assure the timely, faithful, and uninterrupted provision of operations and maintenance services procured separately, or as one element of design-build-operate-maintain or design-build-finance-operate-maintain services, the governmental body shall identify, in the solicitation, one or more of the other forms of security identified in Section 11-35-3037 that shall be furnished to the governmental body by the offerors (or bidders) in order to be considered to be responsive.

#### (2) Operations Period Performance Bonds.

(a) If required in a solicitation for operation and maintenance, design-build-operate-maintain, or design-build-finance-operate-maintain, each offeror shall demonstrate in its offer that it is prepared to provide, and upon award of the contract, to maintain in effect an operations period performance bond that secures the timely, faithful, and uninterrupted performance of operations and maintenance services required under the contract, in the amount of 100% of that portion of the contract price that includes the cost of such operation and maintenance services during the period covered by the bond. In those procurements in which the contract period for operation and maintenance is longer than 5 years, the procurement officer may accept an operations period performance bond of five years’ duration, provided that such bond is renewable by the contractor every five (5) years during the contract, and provided further, that the contractor has made a firm contractual commitment to maintain such bond in full force and effect throughout the contract term.

(b) The operations period performance bond shall be delivered by the contractor to the governmental body at the same time the contract is executed. If a contractor fails to deliver the required bond, the contractor's bid (or offer) shall be rejected, its bid security shall be enforced, award of the contract shall be made to the next ranked bidder (or offeror), or the contractor shall be declared to be in default, as otherwise provided by these regulations.

(c) Operations period performance bond shall be in a form to be specified in the Manual for Planning and Execution of State Permanent Improvement, Part II. Each bond shall be issued by a Surety Company licensed in South Carolina with an “A” minimum rating of performance as stated in the most current publication of “Best Key Rating Guide, Property Liability”, which company shows a financial strength rating of at least five (5) times the bond amount.

#### (3) Letters of Credit to Cover Interruptions in Operation.

(a) If required in a solicitation for operation and maintenance, design-build-operate-maintain, or design-build-finance-operate-maintain, each offeror shall demonstrate in its offer that it is prepared to post,

and upon award of the contract shall post, and in each succeeding year adjust and maintain in place, an irrevocable letter of credit with a banking institution in this State that secures the timely, faithful, and uninterrupted performance of operations and maintenance services required under the contract, in an amount established under the contract that is sufficient to cover 100% of the cost of performing such operation and maintenance services during the next 12 months.

(b) The letter of credit required under this Section shall be posted by the contractor at the same time the contract is executed, and thereafter, shall be annually adjusted in amount and maintained by the contractor. If an offeror or bidder fails to demonstrate in its offer that it is prepared to post the required letter of credit, the bid (or offer) shall be rejected, the bid security shall be enforced, and award of the contract shall be made to the next ranked bidder (or offeror), as otherwise provided by these regulations. If the contractor fails to place and maintain the required letter of credit, the contractor shall be declared to be in default, as otherwise provided by these regulations.

(c) If required by the solicitation, letters of credit shall be in a form to be specified in the Manual for Planning and Execution of State Permanent Improvement, Part II.

(4) Guarantees.

(a) If required in a solicitation for operation and maintenance, design-build-operate-maintain, or design-build-finance-operate-maintain, the contractor and affiliated organizations (including parent corporations) shall provide a written guarantee that secures the timely, faithful, and uninterrupted performance of operations and maintenance services required under the contract, in an amount established under the contract that is sufficient to cover 100% of the cost of performing such operation and maintenance services during the contract period.

(b) The written guarantee required under this Section shall be submitted by each offeror at the time the proposal is submitted. If the contractor fails to submit the required guarantee, the contractor's bid (or offer) shall be rejected, its bid security shall be enforced, and award of the contract shall be made to the next ranked bidder (or offeror) as otherwise provided by these regulations.

(c) If required by the solicitation, guarantees shall be in a form to be specified in the Manual for Planning and Execution of State Permanent Improvement, Part II.

N. Construction Management At-Risk.

(1) Absent the approval required by Section 11-35-2010, a contract with a construction manager at-risk may not involve cost reimbursement.

(2) Prior to contracting for a GMP, all construction management services provided by a construction manager at-risk must be paid as a fee based on either a fixed rate, fixed amount, or fixed formula.

(3) As required by Section 11-35-3030(2)(a)(iv), construction may not commence until the bonding requirements of Section 11-35-3030(2)(a) have been satisfied. Subject to the foregoing, bonding may be provided and construction may commence for a designated portion of the construction.

(4) In a construction management at-risk project, construction may not commence for any portion of the construction until after the governmental body and the construction manager at risk contract for a fixed price or a GMP regarding that portion of the construction. Prior to executing a contract for a fixed price or a GMP, a governmental body shall comply with Section 11-35-1830 and Regulation 19-445.2120, if applicable. For purposes of Section 11-35-1830(3)(a), adequate price competition exists for all components of the construction work awarded by a construction manager at-risk on the basis of competitive bids.

(5) When seeking competitive sealed proposals in a construction management at-risk procurement, the solicitation shall include a preliminary budget, and if applicable, completed programming and the conceptual design. The solicitation shall request information concerning the prospective offeror's qualifications, experience, and ability to perform the requirements of the contract, including but not limited to, experience on projects of similar size and complexity, and history of on-time, on-budget, on-schedule construction. The offeror's proposed fee may be a factor in determining the award.

(6) After all preconstruction services and final construction drawings have been completed, or prior thereto upon written determination by the procurement officer, a governmental body must negotiate with and contract for a GMP with a construction manager at-risk. If negotiations are unsuccessful, the governmental body may issue an invitation for bids, as allowed by this code, for the remaining construction.

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(7) A governmental body shall have the right at any time, and for three years following final payment, to audit the construction manager at-risk to disallow and to recover costs not properly charged to the project. Any costs incurred above the GMP shall be paid for by the construction manager at-risk.

(8) A construction manager at-risk may not self-perform any construction work for which subcontractor bids are invited, unless no acceptable bids are received or a subcontractor fails to perform. Ordinarily, the contract with a construction manager at-risk should require the construction manager at-risk to invite bids for all major components of the construction work. Section 11-35-4210 does not apply to any subcontractor bid process conducted by a construction manager at-risk.

19-445.2150. Surplus Property Management.

#### A. Definition, Authority and Mission.

(1) [Remains the same.]

(2) Authority.

The disposition of all surplus property shall be conducted by the ~~Division of General Service~~ Division's Surplus Property Management Office (SPMO) at such places and in such manner determined most advantageous to the State, except as defined in Section 11-35-1580 of the Procurement Code. All government bodies must identify surplus items and declare them as such, and report them in writing to the ~~SPMO Materials Management Officer or the Information Technology Management Officer (ITMO), or the designee of either,~~ within one hundred and eighty (180) days from the date they become surplus. The SPMO shall deposit the proceeds from such disposition, less expense of the disposition, in the State's General Fund unless a government body makes a written request to retain such proceeds, less cost of disposition, for the purchase of like kind property and the ~~Materials Management Officer or ITMO~~ SPMO, or ~~the his~~ his designee of either, approves such request.

(3) Mission.

The primary mission of the Surplus Property Management ~~Program Office~~ shall be to receive, warehouse and dispose of the State's surplus property in the best interest of the State. The central warehousing of State surplus property will allow all State governmental bodies and other political subdivisions one location to acquire needed property ~~which otherwise might escape the system and be sold to the public.~~

The purpose of this program is to provide the following:

1. elimination of costs related to the warehousing, insurance and accounting systems necessary to fulfill an agency's surplus property responsibility,
2. maximization of proceeds by disposing of property as soon as possible after it becomes excess to an agency's needs,
3. establishment of priorities in the disposal process that encourage keeping assets in public use as long as possible,
4. conversion of unneeded fixed assets into available funds on a timely basis ~~for offsetting the cost of new like equipment.~~

#### B. Reporting and Relocation of Surplus Property.

(1) Reporting.

Within ~~ninety (90)~~ one hundred eighty (180) days from the date property becomes surplus, it must be reported to the SPMO on a turn-in document (TID) designed by the SPMO. The description, model or serial number, acquisition cost, date of purchase and agency ID number shall be listed for each item.

Upon receipt of the TID, the SPMO will screen the property to determine whether it is surplus or junk as defined in these regulations.

(2) Property Relocation.

Surplus property reported shall be scheduled for relocation to the SPMO, Boston Avenue, West Columbia; or, upon consultation and agreement with the generating governmental body, remain at the governmental body's site if deemed by the SPMO to be a more cost-effective method for disposal. ~~All costs associated with relocation of property will be borne by the SPMO, except property as defined in these regulations under Subsection C, Item 2, A and B.~~

At such time as property is officially received by the SPMO, title will pass to the ~~Division of General Services'~~ Division and shall be accounted for as described herein. Governmental bodies shall delete insurance coverage on such property. The SPMO shall carry sufficient insurance to ensure these assets are safeguarded against loss. Governmental bodies shall delete such property from their fixed asset records at this point of transfer.

Upon disposal of the property, the proceeds, less cost of disposition, will be returned to the authorized revenue center if so requested and authorized in accordance with these regulations.

If determined to be junk, disposal will be the responsibility of the generating governmental body in accordance with Section 11-35-4020 of the Procurement Code.

C. Transfer of Surplus Property to Governmental Bodies, Political Subdivisions, and Eligible Nonprofit Health or Education Institutions.

(1) Eligibility.

The SPMO's primary role shall be to relocate surplus property to eligible Donees which includes governmental bodies, political subdivisions and nonprofit health and educational institutions. ~~The Manager of Supply and Surplus Property Management shall be responsible for determining an applicant's eligibility prior to any transfer of property.~~

The term governmental bodies means any State government department, commission, council, board, bureau, committee, institution, college, university, technical school, legislative body, agency government corporation, or other establishment or official of the executive, judicial, or legislative branches of the State. The term political subdivisions includes counties, municipalities, school districts or public service or special purpose districts. The term eligible nonprofit health or educational institutions means tax-exempt entities, duly incorporated as such by the State. SPMO shall be responsible for determining an applicant's eligibility prior to any transfer of property. Governmental body excludes the General Assembly and all local political subdivisions such as counties, municipalities, school districts or public service or special purpose districts.

~~The term political subdivisions includes counties, municipalities, school districts or public service or special purpose districts.~~

~~The term eligible nonprofit health or educational institutions means tax exempt entities, duly incorporated as such by the State.~~

The SPMO will maintain sufficient records to support the eligibility status of these entities.

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### (2) Determination of Sale Price.

The sale price for all items will be established by the Manager of ~~Supply and Surplus Property Management~~, or the Manager's designee. The Manager or the Manager's designee shall have the final authority to accept or reject bids received via public sale. The following categories and methods will be used:

(a) Vehicles: NADA loan value shall be used for the sale price. In certain instances, the most recent public sale figures and consultation with the generating governmental body shall be the basis for a sale price.

(b) Boats, motors, heavy equipment, farm equipment, airplanes and other items with an acquisition cost in excess of \$5,000: The sale price shall be set from the most recent public sale figures and/or any other method necessary to establish a reasonable value including consultation with the generating governmental body.

(c) Miscellaneous items with an acquisition cost of \$5,000 or less such as office furniture and machines, shop equipment, cafeteria equipment, etc.: A sale price will be assessed ~~in accordance with~~ based on the current fair-market conditions value.

### (3) Terms and Conditions on Property Transferred from Warehouse.

For any purchases made under this subsection, the purchasing entity will certify that all items acquired will be for the sole benefit of the buying institution and that no personal use will be involved. This certification will be formalized by the agreement signed at the time eligibility is established. The following terms and conditions will be set forth therein:

(1) Property must be placed into public use within one (1) year of acquisition and remain in use one (1) year from the date placed into actual use.

(2) Property which becomes unusable may be disposed of prior to the one-year limitation with the approval of the SPMO.

A utilization visit may be made by authorized personnel of the SPMO. All vehicles and property with an acquisition cost in excess of \$5,000 require a utilization review during the twelve-month period from date of transfer to ensure the property is in public use.

(A) Any misuse of property will be reported in writing to the SPMO's ~~State Surplus Property Manager Supervisor or his successor~~ by the utilization staff of the SPMO. ~~The State Surplus Property SPMO Manager Supervisor or his successor will consult with the designee of the Materials Management Officer or the ITMO who~~ shall have the authority to suspend all further purchases until a determination can be made under Subsection B. If warranted, the matter shall be referred to the proper law enforcement authority for full investigation.

(B) Upon determination that misuse of property has occurred, purchasing privileges will be terminated and not restored until the buying governmental body, political subdivision, or nonprofit health or educational institution pays to the SPMO the fair market value of the item(s) misused or returns the misused property to the SPMO.

### (4) Disposition Cycles for Surplus Property.

An appropriate cycle methodology as determined in the SPMO's sole discretion shall be used for the disposal process of surplus property, ~~beginning with the Monday (if this is a state holiday, the cycle will begin on the first business day of the week) following the week during which the property is processed by the SPMO.~~



Governmental bodies, political subdivisions and nonprofit health and educational institutions, and any other qualifying donees will be given priority over the general public to acquire the property.

Special items and heavy equipment, will generally follow the same disposal procedures as other property. When vehicles are the items in question, they will be held for two weeks to allow State agencies purchasing priority. ~~However, the SPMO shall have the right to deviate from these procedures if it is in the best interest of the state. In cases where cost avoidance, space requirements, accessibility and manpower are considerations,~~ However, the SPMO shall have the authority to deviate from these procedures in circumstances where cost avoidance, space requirements, market conditions, accessibility and manpower are considerations. ~~bypass individual sales to the general public and offer these items to eligible donees first and, if not disposed of, then dispose of them through public auction.~~ The SPMO must document that such procedure is advantageous to the State.

#### D. Public Sale of Surplus Property.

##### (1) Public Sale Cycle.

Upon completion of ~~an appropriate distribution~~ the Donee sales cycle, the remaining items shall be made available to the public. Donees and the general public may purchase in this period, but without priority. This period has no minimum or maximum length and is determined by warehouse space and scheduled incoming property. There will also be times when property will not be made available for a Public Cycle Sale.

##### (2) Final Disposition by Competitive Public Sale.

~~Upon completion of the public sale cycle, all surplus property shall be offered through competitive sealed bids or public auction.~~

When surplus property is sold via the competitive sealed bid process, notification of such sale shall be given through a Notice of Sale to be posted at the SPMO at least fifteen (15) days prior to the bid opening date. The sale shall also be announced through advertisement in newspapers of general circulation, ~~and/or~~ the South Carolina Business Opportunities publication and such electronic or other media as deemed appropriate by the SPMO. The Notice of Sale shall list the supplies or property offered for sale; designate the location and how property may be inspected; and state the terms and conditions of sale and instructions to bidders including the place, date, and time set for bid opening. Bids shall be opened publicly.

Award shall be made in accordance with the provisions set forth in the Notice of Sale and to the highest responsive and responsible bidder provided that the price offered by such bidder is deemed reasonable by the SPMO or his designee ~~of the MMO or ITMO, or his designee.~~ Where such price is not deemed reasonable, the bids may be rejected in whole, or in part, and the sale negotiated beginning with the highest bidder provided the negotiated sale price is higher than the highest responsive and responsible bid. In the event of a tie bid the award will be made in accordance with the tie bid procedure set forth in Section 11-35-1520(9) of the Consolidated Procurement Code.

Property may also be sold at a public auction by an experienced auctioneer. The Notice of Sale shall include, at a minimum, all terms and conditions of the sale and a statement clarifying the authority of the SPMO designee ~~of the MMO or ITMO,~~ or his designee, to reject any and all bids. These auctions will be advertised in a newspaper of general circulation or on the radio, or both.

##### (3) Other Means of Disposal.

Some types and classes of items can be sold or disposed of more economically by some other means of disposal including barter, appraisal, electric commerce and web based sales. In such cases, and also where the nature of the supply or unusual circumstances necessitate its sale to be restricted or controlled, the ~~Materials~~

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~~Management Officer~~SPMO may employ such other means, ~~including but not limited to appraisal,~~ provided the ~~Materials Management Officer~~SPMO makes a written determination that such procedure is advantageous to the State.

(4) [Remains the same.]

E. [Remains the same.]

F. Inventory and Accounting Systems.

(1) Forms.

Turn-in documents designed by the ~~Surplus Property Office~~SPMO shall be used by all governmental bodies for reporting surplus property to the SPMO. It shall be the responsibility of the generating governmental body to obtain these forms and to furnish all information required on the form. Items received by the SPMO shall be physically checked by the SPMO against the turn-in document and a signed receipt issued to the governmental body.

(2) Tagging.

Items received by the SPMO shall be assigned an inventory number and data including generating governmental body, ~~name,~~ description of property, quantity, original acquisition cost, ~~date purchased, serial or model number~~ and other relevant information entered into an automated inventory system. Inventory tags listing all necessary information shall be attached to each item.

(3) [Remains the same.]

(4) [Remains the same.]

(5) Invoicing.

Invoices shall be generated and mailed to the acquiring agency. All cash and accounts receivable transaction records shall be properly maintained. All transfers of funds to various accounts will be performed in accordance with these regulations.

(6) [Remains the same.]

(7) Property sold to the public shall be paid for in full at the time of purchase.

Transactions shall be documented by a Bill of Sale enumerating all conditions of the sale i.e., "as is, where is," etc. and must be signed by the purchaser. Personal checks with proper identification, certified checks, or money orders made payable to the State of South Carolina or cash or credit cards shall be accepted as a form of payment. A copy of the Bill of Sale shall be presented to the purchaser as a receipt ~~and a copy along with the payment shall be forwarded to the Internal Operations Cashier. Two copies shall be retained internally by the SPMO, one as the source document for updating the computer records and the other for filing.~~

G. Trade In Sales.

Governmental bodies may trade in personal property, whose original unit purchase price did not exceed \$5,000, the trade in value of which must be applied to the purchase of new items. When the original unit purchase price exceeds \$5,000, the governmental body shall refer the matter to the ~~Materials Management Officer,~~ the ITMO~~SPMO,~~ or ~~the his~~ designee ~~of either,~~ for disposition.

The ~~Materials Management Officer or the ITMO~~SPMO, or ~~the his~~ designee of ~~either~~, shall have the authority to determine whether the property shall be traded in and the value applied to the purchase of new like items or classified as surplus and sold in accordance with the provisions of Section 11-35-3820 of the Procurement Code. When the original purchase price exceeds \$100,000, the ~~Materials Management Officer, the ITMO~~SPMO, or ~~the his~~ designee of ~~either~~, shall make a written determination as to its reasonableness and document such trade-in transaction.

#### H. Definition ~~and Sale~~ of Junk.

Junk is State-owned supplies and equipment having no remaining useful life in public service ~~or and~~ the cost to repair or to refurbish the property ~~in order to return it to public use would exceed~~s the value of like used equipment, or the cost of transporting the property for sale exceeds the likely recovery from a sale, with remaining useful life. Property that may be recycled is not considered junk. The classification of property as junk is at the sole discretion of the SPMO.

#### I. Unauthorized Disposal.

- (1) [Remains the same.]
- (2) Corrective Action and Liability.

In all cases, the head of the ~~governmental body~~ disposing agency shall prepare a written determination describing the facts and circumstances surrounding the act, corrective action being taken to prevent recurrence, and action taken against the individual committing the act and shall report the matter in writing to the ~~Surplus Property Management~~SPMO within ten (10) days after the determination.

#### J. [Remains the same.]

#### **Fiscal Impact Statement:**

No additional state funding is requested. The State Budget and Control Board estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions to Regulation 19-445.

#### **Statement of Rationale:**

As originally enacted in 1981, the Consolidated Procurement Code was largely adapted from the American Bar Associations Model Procurement Code for State and Local Governments and the accompanying model regulations. In 2000, the ABA adopted a revised model, the 2000 Model Procurement Code. In 2002, the ABA adopted updates to the accompanying model regulations. Many of the changes to these model documents regard construction. Senate Bill 282, currently pending before the General Assembly, would amend the Consolidated Procurement Code by adopting many of these changes. In addition, the Consolidated Procurement Code expressly contemplates the continued development of explicit and thoroughly considered procurement policies and practices. The proposed changes are needed to accommodate these developments and to further consolidate, clarify, and modernize the law governing procurement in this State. S.C. Code Section 11-35-20(d).

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Document No. 3174  
**BUDGET AND CONTROL BOARD**  
CHAPTER 19

Statutory Authority: 1976 Code Section 11-35-10 et seq.

### 19-445. South Carolina Procurement Regulations - Pre-Bid Conferences

#### **Synopsis:**

The Consolidated Procurement Code authorizes the Budget and Control Board to promulgate regulations governing the procurement, management, control, and disposal of any and all supplies, services, information technology, and construction to be procured by the State and any other regulations relating to implementation of Title 11, Chapter 35. (Sections 11-35-60 & -540(1)) The proposed regulation regards Pre-Bid Conferences. A review of public notices for state procurements revealed that when pre-bid conferences are conducted, over 70% are identified as mandatory. When a potential bidder (or offeror) fails to attend a mandatory pre-bid conference, the practice has been to reject their bid if one is submitted. Since 1970, the United State's Comptroller General has ruled that the failure to attend a mandatory pre-bid conference is not grounds for rejecting a bid. In doing so, the CG presented a strong case that mandatory pre-bid conferences are anti-competitive. Pre-bid conferences cannot and do not add to or take away from the requirements of a solicitation and do not in any way bind a bidder. This can only be done by a written modification to the solicitation. Indeed, Section 2042 currently states that nothing said at a pre-bid conference, regardless of whether it is mandatory, changes the invitation for bids unless a change is made in writing. Thus, mandatory pre-bid conferences tend to limit competition without any substantial corresponding benefit. In recognition of this, Section 2042 was modified to require that notice of any pre-bid conference be placed in the notice of solicitation, that a potential bidder's failure to attend an advertised pre-bid conference does not excuse its responsibility for successfully performing, that any agency desiring to use a pre-bid conference make a determination that the conference is justified by the unique nature of the project and that it will not unduly restrict competition.

**Instructions:** The following section of Regulation 19-445 is modified as provided below. All other items and sections remain unchanged.

~~Indicates Matter Stricken~~

Indicates New Matter

#### **Text:**

19-445.2042. Pre-Bid Conferences.

(A) Pre-bid conferences may be conducted. The conference should be held long enough after the Invitation for Bids has been issued to allow bidders to become familiar with it, but sufficiently before bid opening to allow consideration of the conference results in preparing their bids. Notice of the conference must be included in the notice of the solicitation required by Articles 5 or 9 of this code.

(B) Nothing stated at the pre-bid conference shall change the Invitation for Bids unless a change is made by written amendment. A potential bidder's failure to attend an advertised pre-bid conference will not excuse its responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the State.

(C) Pre-bid conferences may not be made mandatory absent a written determination by the head of the governmental body or his designee that the unique nature of the procurement justifies a mandatory pre-bid conference and that a mandatory pre-bid conference will not unduly restrict competition.

**Fiscal Impact Statement:**

No additional state funding is requested. The State Budget and Control Board estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions to Regulation 19-445.

**Statement of Rationale:**

The Consolidated Procurement Code expressly contemplates the continued development of explicit and thoroughly considered procurement policies and practices. The proposed changes are needed to accommodate these developments and to further consolidate, clarify, and modernize the law governing procurement in this State. S.C. Code Section 11-35-20(d).

Document No. 3138  
**STATE BOARD OF EDUCATION**  
 CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60, 59-31-210, 59-31-360 and Proviso 1.67. (SDE: Lost & Damaged Textbook Fees) in the 2007–08 Appropriations Act

43-71. Free Textbooks

**Synopsis:**

The purpose of this amendment is to modify how state-owned materials are stamped and distributed to pupils. The Drafting Notice was published in the May 25, 2007, State Register.

Section-by-Section Discussion

Section 11. Adding language to authorize the South Carolina Department of Education to determine the instructional materials (i.e., student editions) that will be circulated using the state textbook manager authorized in the 2006–07 Appropriations Act.

Section 13. Amending language changing the procedure for stamping or marking textbooks issued to pupils; adding language stating when a barcode will be affixed to a textbook; and deleting language concerning the stamping of textbooks that is no longer applicable.

Section 15. Adding language concerning the removal of or damage to barcodes by pupils on state-owned instructional materials.

Section 27. Amending language concerning the payment of lost and damaged textbook fees to reflect Proviso 1.67. (SDE: Lost & Damaged Textbook Fees) in the 2007–08 Appropriations Act.

Section 29. Most Favored Purchaser. Adding language assessing publishers liquidated damages for failing South Carolina Department of Education to provide contract information when requested by the. S. C. Code Ann. Section 59-31-540 (2004) requires investigations as to the prices of textbooks sold to other persons, states, or state boards.)

**Instructions:** Amend R 43-71, Free Textbooks, to Chapter 43 regulations.

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### Text:

Section 1. Free Basal Textbook Enabling Act. Pursuant to Section 59-31-360 to provide "free basal textbooks" in Grades 1 through 12, S. C. State Board of Education does hereby set forth procedures for ordering instructional materials.

Section 2. Requisition for Free Instructional Materials. Requisitions for free instructional materials shall be made only to the South Carolina Department of Education (SCDE), in accordance with "Instructional Materials Management Procedures for Schools", by completing the official current order form or on internet using the ordering system on the South Carolina Instructional Materials Central Depository website.

Section 3. Provisions for Requisitioning and Distributing Free Instructional Materials.

A. Acquisition of Free Instructional Materials on Levels of Achievement. Any pupil who is a member of any grade within the free instructional materials program may be assigned free instructional materials on the appropriate achievement level as indicated by tests and other evaluations.

B. Allocation of Instructional Materials to Schools. The SCDE shall provide a schedule of instructional materials allocation formulas to the State Board of Education for information annually. The formulas shall be based on available funding provided by the General Assembly for the Instructional Materials program; the average cost of adopted instructional materials; and the prescribed percentage of total membership used in calculating materials allocations.

C. Educable Mentally Handicapped (Special Education) Reading Primary classes shall be eligible for necessary reading materials not to exceed two pre-readiness readers and/or readiness programs and one beginning reading program.

Section 4. Changing to New Titles or Series. A school may change to a new title or series in a subject area only when new material on the same level is adopted by the State Board of Education. Schools shall not return materials presently on the state adopted list to be exchanged for other titles or series, except limited changes that are justified by variations in student achievements. Any books materials exchanged must be on different levels of difficulty. Provided, that the Board shall have the authority to limit or postpone the acquisition of titles or series for such period of time as may be deemed advisable.

Section 5. Property of the State. Title to all materials issued to schools and depositories under the Free Textbook Act shall be vested in the State. (Legislative Provision).

Section 6. Responsible Parties. The district board of trustees shall be responsible for the proper custody of all materials in its schools and depositories and shall be responsible for the administration of the Instructional Materials Management Procedures for Schools in those schools and depositories.

Section 7. Distribution to Schools. The county or district board of trustees shall elect from the procedures listed below the system of distribution to be used.

A. County Depository: A county depository may be established through which all materials in the county will be distributed.

B. District Depository: A district depository may be established through which all materials in the district will be distributed.

C. School Depository: A school depository may be established through which all materials in the school will be distributed.

The board of trustees may designate an agent to operate the depository, maintain adequate records and make necessary reports and remittances to the responsible office at the SCDE; however, such designation does not relieve the board of its responsibilities.

Section 8. Shipping of Instructional Materials. Each school or depository will be sent a Shipment Advisory listing the materials shipped to it. The school or depository agent shall verify the materials received with the materials listed on the Shipment Advisory. If the title(s) and number of materials received do not agree with the title(s) and number of materials on the Shipment Advisory, a report must be made promptly to the responsible office at the SCDE showing: (1) the name of the school and county, (2) the number and date of the Shipment Advisory, (3) a complete itemized list of the differences between Shipment Advisory and books received, both over and short.

Section 9. Records and Reports. Each school and depository shall maintain a separate and complete file for instructional material records, correspondence, and forms. Each school and depository shall maintain an accurate record of the number of materials on hand, materials received and materials returned. They, also, shall keep an accurate record of sales, lost materials, and damage fees and report same to the SCDE and remit all funds collected and pay promptly all amounts due. The Department will issue an official receipt covering each remittance.

Each school and depository shall furnish the responsible office at the SCDE with membership reports, anticipated membership reports, inventory reports, and other reports as may be requested. Each school shall maintain a record of materials issued to each pupil.

Section 10. Storage. Each school and depository shall provide for instructional materials adequate places of storage which are safe, clean, dry, well arranged, and free of insects. Care must be taken to see that materials do not mold while in storage. Materials should not be stored on floors and should be at least one inch from walls to allow proper ventilation and protection from termites.

Section 11. Distribution Within the School. Materials may be distributed directly to the pupils from the central bookroom or delivered from the bookroom to each teacher to be issued to the pupils. Materials as determined by the responsible office at the SCDE shall be distributed and circulated using the online state textbook manager.

Section 12. Inspection. All materials and materials records shall be subject at any time to inspection by authorized agents of the county and/or district board of trustees and the SCDE. It shall be the duty of each teacher to inspect frequently the materials issued to pupils and to emphasize the proper care and handling of materials.

Section 13. Stamping or Labeling Instructional Materials. Free Instructional materials issued to pupils shall have a barcode label properly affixed marked "Property State of SC". New materials shall not be stamped or labeled or have a barcode affixed or otherwise marked until issued to pupils

Section 14. Issuing Used Instructional Materials. All used materials of each title shall be issued before any new materials of the same title are issued.

Section 15. Marking in Instructional Materials. Pupil's name may be written below the property stamp impression or on the property label. Pupils may appropriately mark lesson assignments, otherwise they shall not mark or write in instructional materials. Pupils shall not remove, deface, or damage barcodes on state-owned materials. (See Section 20 - Damaged Instructional Materials)

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Section 16. No Deposits Charged on Instructional Materials. No board or agent thereof shall require a pupil to pay a deposit on any free materials issued by the SCDE.

Section 17. Instructional Materials to be Returned by Pupils. Materials shall be turned in to the school by the pupil, parents or guardians under the following circumstances:

- A. When appropriately requested by a teacher or school official.
- B. When the course is completed or discontinued by the school or pupil.
- C. When the pupil withdraws from school.
- D. At the end of the school year.

Section 18. Transfer Students. A school from which a pupil transfers shall make an appropriate notation on the pupil's transcript records as to whether all his or her materials were returned to the school and whether any damage or lost materials fees are unpaid. (See Sections 17, 19, and 20)

Section 19. Lost Instructional Materials. Schools may require pupils, parents or guardians to pay for instructional materials lost and the pupil, parent or guardian may be denied further benefits of the Free Instructional Materials Program until in compliance with this requirement. This requirement may be waived in instances where the judgment of the principal and/or responsible officials believe that the child is a victim of unusual circumstances. The school district shall be responsible for the cost. The report of lost instructional materials paid for and sales should be itemized by titles on an appropriate form sent to each school at the end of the school year. The schedule of charges shall be determined by the State Board of Education upon the recommendation of the SCDE. Fees collected for lost materials shall be remitted to the SCDE.

Section 20. Damaged Instructional Materials. Schools are required to collect appropriate damage fees from any pupil, parent or guardian for abuse or improper care of instructional materials and the pupil, parent or guardian may be denied further benefits of the Free Instructional Materials Program until in compliance with this requirement. This requirement may be waived in instances where the judgment of the principal and/or responsible officials believe that the child is a victim of unusual circumstances. The school or district shall be responsible for the cost. The amount to be charged in such cases shall be determined by the agent in charge of materials. In no case, shall the cost exceed the amount of charge applicable had the material been lost, provided that the pupil, parent, guardian shall have the option of paying the damage fee or purchasing the material according to the schedule in Section 19 above.

Materials on which only a damage fee is collected shall remain the property of the state and shall remain with the school for further use.

Materials damage fees collected should be reported in a lump sum in the space provided on the annual instructional materials inventory form sent each school at the end of the school year. Fees collected for damaged materials shall be remitted to the SCDE.

Section 21. Fire Loss. Materials destroyed or damaged beyond further use by fire in school buildings or private homes shall not be charged to the individual or school provided an official of the school furnishes the SCDE a certified list of the materials destroyed and the place and date of the fire.

Section 22. Contagious Diseases. Materials issued to a pupil having a contagious disease such as scarlet fever, diphtheria, etc., shall be burned by the local agent provided such destruction has been recommended by the physician attending the child. The local agent shall provide the SCDE with a certified list of the materials destroyed.



Section 23. Returning Instructional Materials to Central Depository. Schools or depositories shall not return used free instructional materials except when requested or authorized to do so by the SCDE. New instructional materials (materials which never have been put in use or tagged, stamped, or labeled) may be returned at any time. (See instructions below)

A. Address all shipments to:  
 Central Depository  
 301 Greystone Blvd.  
 Columbia, South Carolina 29210

B. Return instructional materials by completing the Return Form.

C. When preparing the Return Form, list the instructional materials and follow the instructions on the form.

Section 24. Defective Instructional Materials. Defective materials should be clearly marked "DEFECT" on the outside of the front cover and the defect identified on the inside of the front cover or in a visible place on the outside of a non-book item. Return the defective materials as soon as possible to the Instructional Materials Central Depository and notify the responsible office at the SCDE whether a replacement or an inventory credit is desired.

Section 25. Disposition of Out-of-Adoption Instructional Materials.

A. Out-of-adoption instructional materials are those for which the contracts with the publishers have expired.

B. Schools shall return all new out-of-adoption instructional materials to the Instructional Materials Central Depository promptly after the expiration of the contract.

C. Schools may continue to use a title on which the contract has expired as long as the title is available from stock owned by the state. Schools should continue to use such materials until they have carefully evaluated all newly adopted materials and selected those best suited to their needs. Schools may continue to use the old title for some grade sections and new titles for other grade sections if they wish.

D. Schools which change to new titles may be requested to return all or a portion of the titles that are being discontinued. The remaining copies may be used or disposed of by the school. Maximum use should be made of these materials, such as additional text material including assignments for classroom work or consigned for home study.

E. Out-of-adoption materials will be removed from the inventory of books charged to the school before the second year after the expiration of the contract with the publisher. Districts should attempt to dispose of out-of-adoption materials locally. Districts may dispose of those materials in any manner, including selling materials for the purpose of recycle or resale. Funds received by the sale of used materials must be used for the purchase of instructional materials or supplies.

Section 26. Consumable Instructional Materials.

A. The SCDE will publish annually a listing of consumable instructional materials. Any materials not on the listing shall be considered non-consumable. Schools using non-consumable materials as consumable shall be responsible for the cost of replacement.

B. Instructional materials such as workbooks, lab manuals, and test booklets that provide space for written comments and answers shall be classified as one-year consumables and considered consumed once

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issued to a student and used for instruction. One-year consumable materials issued to a student and used for instruction will be removed from inventory annually.

C. Funds to replace consumable materials will be provided annually to the extent that an Appropriation is provided by the General Assembly for instructional materials with replacement of non-consumable materials having first priority.

Section 27. Accounts Must Be Settled. Fees for lost and damaged textbooks for the prior school year are due no later than December 1 of the current school year when invoiced by the SCDE. The SCDE may withhold textbook funding from schools that have not paid lost and damaged textbook fees by the payment deadline.

Section 28. Special Adoptions. Instructional materials, textbooks, or series not currently available from the SCDE that are subsequently added as a special adoption or a district adoption under Section 59-31-45 may be purchased with the district's existing allocation. The SCDE may limit the exchange of instructional materials replaced by special and district adoptions.

Section 29. Most Favored Purchaser. Pursuant to South Carolina Code, if publishers sell materials to any other person or entity at a lower price than the price offered to South Carolina, that reduced price automatically becomes the contract price for South Carolina. At the end of each calendar year, publishers shall submit a certified list of all contracts made with other entities during the calendar year just closed on all instructional materials for which the publisher has a contract in South Carolina. That list must include the contract price for those materials. The SCDE may direct the Central Depository to withhold payment for instructional materials purchased from non-responsive publishers or assess non-responsive publishers liquidated damages in an amount equal to 5 percent of the contract price of all instructional materials under contract with the publisher, not to exceed \$5,000.

### **Fiscal Impact Statement:**

The South Carolina Department of Education is paying for the implementation of the state textbook manager from textbook receipts as authorized in the 2007–08 Appropriations Act.

### **Statement of Rationale:**

The 2007–08 Appropriations Act authorizes the use of revenue funds for the implementation of a statewide textbook management system to assist districts in the management and distribution of state-owned textbooks. Implementation of the system has made it necessary to amend certain sections in State Board of Education Regulation 43-71 to conform to the intent of the Appropriations Act. Specifically, the proposed amendment changes how textbooks are tracked as property of the state and circulated to pupils. In addition, amendments would allow for the collection of liquidated damages for companies that do not comply with the most favored purchaser clause in the contract.

Document No. 3137  
**STATE BOARD OF EDUCATION**  
 CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60, 59-59-10 and 2005 Act No. 88, § 4

43-225. School-to-Work Transition Act Regulations

**Synopsis:**

This regulation needs to be repealed as a result of the repeal of the South Carolina School-to-Work Transition Act of 1994 and the passage of the Education and Economic Development Act of 2005.

Section-by-Section Discussion

As noted above, many of the fundamental components of the 1994 School-to-Work Act were transitioned into language in the Education and Economic Development Act. Repealing the 1994 School-to-Work Transition Act regulations will not diminish the services or activities provided to students.

**Instructions:** Repeal R 43-225, School-To-Work Transition Act Regulation, to Chapter 43 Regulations.

**Text:**

~~A. Quality Schooling. By 1995-96, each school district board of trustees shall ensure quality schooling by providing:~~

~~(1) A rigorous, relevant, academic curriculum. Each school district shall examine the learning and teaching standards outlined in curriculum frameworks as adopted by the South Carolina State Board of Education.~~

~~(a) Course offerings in grades nine through twelve (9-12) for College Prep and/or Tech Prep shall include, but not be limited to, the following:~~

~~1) English: English I, English II, CP English III, IV, Communication for the Workplace III, IV.~~

~~2) Mathematics: Algebra I, Algebra II, Geometry, Mathematics for the Technologies I, II, Pre-Calculus, Calculus~~

~~3) Science: Physical Science, Biology, Applied Biology, Chemistry, Physics, Physics for the Technologies~~

~~4) Social Studies: U.S. History, U.S. Government/Economics, World Geography, World History~~

~~5) Physical Education~~

~~6) Occupational Programs~~

~~7) Foreign Language~~

~~8) Visual/Performing Arts/Band~~

~~9) Keyboarding~~

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~~\_\_\_\_\_ 10) \_\_\_\_\_ Driver's Education~~

~~\_\_\_\_\_ 11) \_\_\_\_\_ Advanced Placement Courses~~

~~\_\_\_\_\_ (b) \_\_\_\_\_ Schools may alternate Biology, Chemistry, and Physics when the membership does not justify offering all courses concurrently.~~

~~\_\_\_\_\_ (c) \_\_\_\_\_ Instruction shall be provided in the skills and competencies identified in the SCANS (United States Secretary of Labor's Commission on Achieving Necessary Skills) report and in the employers' survey report of the South Carolina Chamber of Commerce's Business Center for Excellence in Education such as basic skills, resource skills, information skills, systems skills, and technology skills.~~

~~\_\_\_\_\_ (d) \_\_\_\_\_ Instruction in statistics, logic, measurement, and probability shall be included in the mathematics curriculum. This instruction shall be included in science and occupational curricula where appropriate. A separate course in probability and statistics can be offered in addition to the infusion of statistics, logic, measurement, and probability in the mathematics curriculum.~~

~~\_\_\_\_\_ (e) \_\_\_\_\_ Each student shall demonstrate proficiency in keyboarding and computer literacy before graduating from high school.~~

~~\_\_\_\_\_ (f) \_\_\_\_\_ Consistent and continuous structured opportunities shall be provided for academic and occupational teachers to work together to plan integrated instruction for students.~~

~~\_\_\_\_\_ (g) \_\_\_\_\_ Each school district shall ensure that occupational and academic teachers participate in relevant, sustained staff development.~~

~~\_\_\_\_\_ (h) \_\_\_\_\_ Each school shall provide the following complement of applied academic courses:~~

~~\_\_\_\_\_ 1) \_\_\_\_\_ Communication for the Workplace III and IV~~

~~\_\_\_\_\_ 2) \_\_\_\_\_ Mathematics for the Technologies I and II~~

~~\_\_\_\_\_ 3) \_\_\_\_\_ Applied Biology~~

~~\_\_\_\_\_ 4) \_\_\_\_\_ Physics for the Technologies~~

~~\_\_\_\_\_ (i) \_\_\_\_\_ Schools may alternate Applied Biology and Physics for the Technologies when the membership does not justify offering all courses concurrently.~~

~~\_\_\_\_\_ (j) \_\_\_\_\_ School districts shall certify and ensure that the applied academic courses offered are equivalent to pre-college (College Prep) courses in rigor, content, and standards.~~

~~\_\_\_\_\_ (k) \_\_\_\_\_ School districts shall ensure that each teacher teaching an applied academic course has completed appropriate training in applied methodology before teaching the applied academic course. Each teacher shall be certified in the appropriate academic field to teach the applied academic course.~~

~~\_\_\_\_\_ (l) \_\_\_\_\_ Each school district shall provide for accelerated learning for students who are behind their age peers by developing and implementing strategies and action plans [contained in Act 135] to address the needs of these students; these activities shall be incorporated in the annual updates to the school renewal plans.~~

~~\_\_\_\_\_ (m) \_\_\_\_\_ Each school district shall provide professional development activities to train teachers in identifying, assessing, and accommodating different learning styles; these activities shall be incorporated in the annual updates to the school renewal plans.~~

~~\_\_\_\_\_ (n) \_\_\_\_\_ Each school district shall develop plans during the 1995-96 school year to eliminate the general track; this regulation shall be fully implemented for students first enrolling in high school on or after the 1996-97 school year.~~

~~\_\_\_\_\_ (2) Changes in the vocational (occupational) education programs which are essential to expand content, relevancy, and rigor in preparation for lifelong learning and living in a technological society.~~

~~\_\_\_\_\_ (a) Occupational education programs shall be restructured into career majors which address the emerging technologies and future employment opportunities in business and industry; career majors shall consist of occupational programs and core academic courses necessary to succeed in a chosen field of study.~~

~~\_\_\_\_\_ (b) High expectations shall be established for all students.~~

~~\_\_\_\_\_ (c) Provisions shall be made for all students to be actively engaged in the learning process.~~

~~\_\_\_\_\_ (d) Instruction in communications, mathematics, and science shall be integrated in all career majors.~~

~~\_\_\_\_\_ (e) Technology shall be incorporated in all career majors.~~

~~\_\_\_\_\_ (f) A comprehensive needs assessment shall be conducted every five years to ensure relevancy of programs and preparation for lifelong learning; the first needs assessment shall be conducted by July 1, 1999, and by July 1 of each fifth year thereafter.~~

~~\_\_\_\_\_ (g) Occupational programs shall be implemented, revised, or deleted based on results of the comprehensive needs assessment.~~

~~\_\_\_\_\_ (h) Occupational programs shall be competency based.~~

~~B. Career Exploration and Counseling. By 1996-97, school district boards of trustees shall develop and implement a comprehensive system of career exploration and counseling that includes the following:~~

~~\_\_\_\_\_ (1) Career Development, Guidance, and Counseling Activities~~

~~\_\_\_\_\_ (a) Sequential curriculum activities shall relate directly to life career planning, decision making, and integration of career concepts and options (career awareness/career exploration/career preparation); curriculum activities, educational opportunities, career information resources, and career development programs shall be developmentally appropriate in kindergarten through grade twelve subject areas.~~

~~\_\_\_\_\_ (b) School districts shall seek active participation in school personnel, parents, community, and business/industry in the career development of students; appropriate information shall be disseminated to these groups seeking their input, involvement, and expertise.~~

~~\_\_\_\_\_ (c) School districts shall emphasize and promote participation of all students in career development activities regardless of race, color, national origin, sex, or disability.~~

~~\_\_\_\_\_ (2) Comprehensive Career Guidance Plans~~

~~\_\_\_\_\_ (a) Beginning in grade six, students and their parents and/or legal guardians in collaboration with appropriate school personnel shall prepare plans (major plan and alternate plan) for various career paths, ensuring that students are exposed to and familiar with career options.~~

~~\_\_\_\_\_ (b) Beginning in grade eight, students and their parents and/or legal guardians in collaboration with appropriate school personnel shall continue revising a comprehensive career guidance plan including a postsecondary option, with the flexibility to move between the Tech Prep and College Prep career paths up to the senior year of high school.~~

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~~(3) Professional Development. Professional development opportunities shall be provided for school counselors to expand their skills for integrating and implementing career guidance and planning into their comprehensive school counseling program.~~

~~C. Work Exploration and Experience. By the school year 1996-97, each school district board of trustees shall:~~

~~(1) Implement work-based programs in compliance with applicable labor laws;~~

~~(2) Offer a range of mentoring opportunities for students beginning no later than the seventh grade;~~

~~(3) Require students participating in any of the work-based programs to have the written permission of their parents or legal guardians in order to engage in such experiences;~~

~~(4) Provide adult supervision for mentoring opportunities; and~~

~~(5) Include some or all of the following as defined in Section 3 of the School to Work Transition Act of 1994 outlined below:~~

~~(a) Traditional mentoring experiences that seek to build a long-lasting relationship during which the mentor and protege work on the protege's personal development and interpersonal skills. The relationship generally lasts a year, with the mentor maintaining occasional contact with the protege for an additional one to two years.~~

~~(b) Shadowing experiences (short term) that introduce a student to a particular job by pairing the student with a worker. The protege follows or "shadows" the worker for a specified time to better understand the requirements of a particular career.~~

~~(c) Service learning experiences that provide one or more students at a work site or community agency with the opportunity to work on a service project. Under close adult supervision, students develop work skills, life skills, and learn how to behave in work situations.~~

~~(d) School-based enterprises that provide opportunities for students to explore and experience basic business and entrepreneurial practices through business-related school activities, including starting a small business.~~

~~(e) Internships and cooperative education learning experiences that provide a one-on-one relationship and "hands on" learning in an area of student interest. A contract shall be developed that outlines expectations and responsibilities of both parties. The protege works regularly after school for three or four hours a week in exchange for the mentor's time in teaching and demonstrating. The internship generally lasts from three to six months.~~

~~D. Structured Work-Based Learning. By the school year 1996-97, each school district board of trustees shall develop structured work-based learning opportunities that include the following:~~

~~(1) Basic Program Components~~

~~(a) Work-based learning which is a planned program of job training or experiences, paid or non-paid work experience, workplace mentoring, and work site instruction in workplace competencies and in a broad variety of elements of a business or career field;~~

~~(b) School-based learning which provides career exploration and counseling, instruction in a career major; a program of study that is based on high academic and skill standards and is linked to postsecondary education; and periodic assessments to identify students' academic strengths and weaknesses;~~

~~\_\_\_\_\_ (e) Connecting activities which coordinate involvement of employers, schools, and students; matching students with school based and work based learning opportunities; and training teachers, mentors, and counselors; and~~

~~\_\_\_\_\_ (d) Awarding credentials for successful completion of a school to work program that results in a high school diploma and an occupational skill certificate.~~

~~\_\_\_\_\_ (2) Youth Apprenticeship Model~~

~~\_\_\_\_\_ (a) Offering opportunities for students beginning in the eleventh grade a course of study which integrates academic curricula, work site learning, and work experience leading to high school graduation with postsecondary options and preparation for the world of work;~~

~~\_\_\_\_\_ (b) Requiring students participating in the work based component to be at least 16 years of age and in the eleventh grade;~~

~~\_\_\_\_\_ (c) Requiring a signed agreement by school, employer, parents or legal guardians, and student stipulating that the employer will provide work based competencies that integrate with school based competencies;~~

~~\_\_\_\_\_ (d) Requiring written permission of parents or legal guardians for students who perform work at a nonschool location pursuant to an apprenticeship or mentoring program under the provisions of this act to engage in such work experiences;~~

~~\_\_\_\_\_ (e) Providing a list of academic, occupational and worksite skills to be offered;~~

~~\_\_\_\_\_ (f) Integrating school based and work based competencies with connecting activities;~~

~~\_\_\_\_\_ (g) Awarding of credentials based on both academic and occupational skills;~~

~~\_\_\_\_\_ (h) Developing articulation agreement(s) with related postsecondary programs;~~

~~\_\_\_\_\_ (i) Coordinating the development of broad based school to work partnerships; and~~

~~\_\_\_\_\_ (j) Requiring documentation that students are appropriately covered regarding workers' compensation, insurance and liability, or other issues related to the school to work system.~~

~~E. Professional Development. Each school district board of trustees shall ensure participation in professional development in the following areas:~~

~~\_\_\_\_\_ (1) Applied techniques;~~

~~\_\_\_\_\_ (2) Integration of curriculum;~~

~~\_\_\_\_\_ (3) Career guidance for teachers and guidance counselors; and~~

~~\_\_\_\_\_ (4) Training for mentors.~~

~~F. Accountability. Each school district board of trustees shall:~~

~~\_\_\_\_\_ (1) Report progress made to implement the School to Work Transition Act of 1994 in the annual updates to the school renewal plans beginning 1995-96;~~

~~\_\_\_\_\_ (2) Report all high school Tech Prep completers to the South Carolina Department of Education on an annual basis so that a graduation database can be established to conduct a five year survey to obtain such information as rate of hire, starting wages or salaries, wages or salary rates five years after graduation, and additional education pursued;~~

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~~(3) Conduct an annual survey of Tech Prep graduates ten (10) months after graduation to determine placement status related to employment, higher education, and military to be submitted to the State Department of Education;~~

~~(4) Establish a local school-to-work advisory committee to address unique employment needs of the area pursuant to Section 9(C) of the South Carolina School-to-Work Transition Act of 1994; and~~

~~(5) Assess the rigor and relevancy of the school-to-work system with a program quality review (at least once every three years) to be conducted by the school district's school-to-work advisory committee and to be reported in the school district's strategic plan.~~

~~G. Waiver. Upon request of a district board of trustees or its designee, the State Board of Education may waive any regulation which would impede the implementation of the statutory or regulatory requirements of the School-to-Work Transition Act of 1994 (1994 Act #450).~~

### **Fiscal Impact Statement:**

None

### **Statement of Rationale:**

This regulation is being repealed as a result of the repeal of the South Carolina School-to-Work Transition Act of 1994 and the passage of the Education and Economic Development Act of 2005. A copy of the statement of rationale may be obtained by contacting James R. Couch, EdD, Director, Office of Career and Technology Education, 1429 Senate Street, Room 1015, 912 Rutledge Building, Columbia, South Carolina 29201 or e-mail [jcouch@ed.sc.gov](mailto:jcouch@ed.sc.gov).

Document No. 3149

## **DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL CHAPTER 61**

Statutory Authority:

Atomic Energy and Radiation Control Act, S.C. Code Ann. Sections 13-7-10 et seq.; Uniform Electronic Transactions Act, S.C. Code Ann. Sections 26-6-10 et seq.; DHEC Enabling Act, S.C. Code Ann. Sections 44-1-10 et seq.; State Underground Petroleum Environmental Response Bank Act, S.C. Code Ann. Sections 44-2-10 et seq.; Safe Drinking Water Act, S.C. Code Ann. Sections 44-55-10 et seq.; State Recreational Waters Act, S.C. Code Ann. Sections 44-55-50 et seq.; Hazardous Waste Management Act, S.C. Code Ann. Sections 44-56-10 et seq.; Infectious Waste Management Act, S.C. Code Ann. Sections 44-93-10 et seq.; Solid Waste Policy and Management Act, S.C. Code Ann. Sections 44-96-10 et seq.; Pollution Control Act, S.C. Code Ann. Sections 48-1-10 et seq.; Environmental Protection Fund Act, S.C. Code Ann. Sections 48-2-10 et seq.; Pollution Control Facilities, S.C. Code Ann. Sections 48-3-10 et seq.; Water Quality Revolving Fund Authority Act, S.C. Code Ann. Sections 48-5-10 et seq.; Stormwater Management and Sediment Reduction Act, S.C. Code Ann. Sections 48-14-10 et seq.; Erosion and Sediment Reduction Act, S.C. Code Ann. Sections 48-18-10 et seq.; S.C. Mining Act, S.C. Code Ann. Sections 48-20-10 et seq.; Coastal Zone Management Act, S.C. Code Ann. Sections 48-39-10 et seq.; Oil and Gas Exploration, Drilling, Transportation and Production Act, S.C. Code Ann. Sections 48-43-10 et seq.

61-115. Environmental Electronic Reporting Requirements

### **Synopsis:**

New Regulation 61-115, Environmental Electronic Reporting Requirements, was promulgated to comply with the United States Environmental Protection Agency's (EPA) Cross-Media Electronic Reporting



Rule (CROMERR), as published in the October 13, 2005, issue of the Federal Register (70 FR 59848 – 59889). Additionally, this regulation will provide consistent standards to include designated state-only programs in the Department’s electronic document receiving systems in accordance with the Uniform Electronic Transactions Act (UETA) of 2004, S.C. Code Ann. Sections 26-6-10 et seq.

This regulation will impact the Department’s federally-authorized programs by setting out specific requirements mandated by the EPA in order for the Department to continue accepting reports and applications electronically. CROMERR established performance standards against which Department electronic document receiving systems will be evaluated before EPA will approve changes to any of the Department’s delegated, authorized, or approved programs to allow electronic reporting by the regulated community. In addition, this regulation will impact state programs by allowing the regulated community to file applications and reports for state programs electronically. The standards set forth in this regulation are necessary to ensure the legal enforceability of the documents. Electronic reporting under this rule is voluntary for regulated entities of state programs and federally-authorized programs. This regulation will provide a consistent framework by which the Department will accept, manage, and enforce electronic record submissions from the regulated community.

#### Discussion:

Section I: This section was created to describe the purpose of the proposed new regulation.

Section II: This section was created to define terms used within the proposed new regulation.

Section III: This section was created to describe when and to which entities the proposed new regulation applies and under what circumstances it does not apply.

Section IV: This section was created to describe the requirements for using the Department’s electronic receiving system(s).

Section V: This section was created to describe the responsibilities of the authorized electronic signatory.

Section VI: This section was created to describe the legal parameters of the proposed new regulation.

Section VII: This section is included to disclose the severability rights of this regulation.

**Instructions:** Add new R.61-115, Environmental Electronic Reporting Requirements, to Chapter 61 regulations.

#### **Text:**

### 61-115. ENVIRONMENTAL ELECTRONIC REPORTING REQUIREMENTS

#### TABLE OF CONTENTS

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### SECTION I. PURPOSE

The purpose of this regulation is to provide the framework by which the South Carolina Department of Health and Environmental Control (Department) will accept, manage, and enforce electronic record submissions from the regulated community. The Department has been authorized to implement these requirements for environmental programs that the United States Environmental Protection Agency (EPA) has delegated, authorized, or approved the Department to administer as referenced in EPA's Cross-Media Electronic Reporting Rule (CROMERR) as published in the October 13, 2005, issue of the Federal Register (70 FR 59848 – 59889). Additionally, under the Uniform Electronic Transactions Act (UETA) of 2004, S.C. Code Ann. Sections 26-6-10 et seq. the Department is also authorized to include UETA requirements for federally-authorized and state-only programs.

### SECTION II. DEFINITIONS

The following words and terms, when used in this section, have the following meanings:

(a) Authorized program--A federal program that the EPA has delegated, authorized, or approved the State of South Carolina to administer, or a program that the EPA has delegated, authorized, or approved the State of South Carolina to administer in lieu of a federal program, under provisions of Title 40 of the Code of Federal Regulations (CFR) and such delegation, authorization, or approval has not been withdrawn or expired.

(b) Copy of record--A true and correct copy of an electronic document received by an electronic document receiving system, which can be viewed in a human-readable format that clearly and accurately associates all of the information provided in the electronic document with descriptions or labeling of the information. A copy of record includes:

(1) all electronic signatures contained in or associated with that document;

(2) the date and time of receipt; and

(3) any other information used to record the meaning of the document or the circumstances of its receipt.

(c) Electronic document--Any information that is submitted in digital form to satisfy requirements of authorized federal or state programs. Information may include data, text, sounds, codes, computer programs, software, or databases.

(d) Electronic document receiving system--A set of apparatus, procedures, software, or records used to receive electronic documents.

(e) Electronic signature--Any information in digital form that is included in, or associated with, an electronic document for the purpose of expressing the same meaning and intention as would a handwritten signature if affixed to an equivalent paper document with the same reference to the same content.

(f) Electronic signature agreement--An agreement drafted by the Department and signed by an individual with respect to an electronic signature device that the individual will use to create his or her electronic signature. The agreement will require such individual to protect the electronic signature device from compromise; to promptly report to the agency or agencies relying on the electronic signatures created any evidence discovered that the device has been compromised; and to be held as legally bound, obligated, or responsible by the electronic signature created as by a handwritten signature.

(g) Electronic signature device--A code or other mechanism that is used to create electronic signatures.

(h) Federal program--Any program administered by the EPA under any provision of 40 Code of Federal Regulations and delegated to the State of South Carolina by the EPA.

(i) Handwritten signature--The scripted name or legal mark of an individual, made by that individual with a marking or writing instrument such as a pen or stylus and executed or adopted with the present intention to authenticate writing in a permanent form.

(j) Person—An individual, corporation, business trust, estate, trust, partnership, limited liability company, association, joint venture, governmental agency, public corporation, or other legal or commercial entity.

(k) Signatory--An individual authorized to and who signs a document using a format acceptable to the Department.

(l) State program--Any program that is established by state legislation and implemented by the Department under state law, including but not limited to: The Atomic Energy and Radiation Control Act, S.C. Code Ann. Sections 13-7-10 et seq.; Uniform Electronic Transactions Act, S.C. Code Ann. Sections 26-6-10 et seq.; DHEC Enabling Act, S.C. Code Ann. Sections 44-1-10 et seq.; State Underground Petroleum Environmental Response Bank Act, S.C. Code Ann. Sections 44-2-10 et seq.; Safe Drinking Water Act, S.C. Code Ann. Sections 44-55-10 et seq.; State Recreational Waters Act, S.C. Code Ann. Sections 44-55-50 et seq.; Hazardous Waste Management Act, S.C. Code Ann. Sections 44-56-10 et seq.; Infectious Waste Management Act, S.C. Code Ann. Sections 44-93-10 et seq.; Solid Waste Policy and Management Act, S.C. Code Ann. Sections 44-96-10 et seq.; Pollution Control Act, S.C. Code Ann. Sections 48-1-10 et seq.; Environmental Protection Fund Act, S.C. Code Ann. Sections 48-2-10 et seq.; Pollution Control Facilities, S.C. Code Ann. Sections 48-3-10 et seq.; Water Quality Revolving Fund Authority Act, S.C. Code Ann. Sections 48-5-10 et seq.; Stormwater Management and Sediment Reduction Act, S.C. Code Ann. Sections 48-14-10 et seq.; Erosion and Sediment Reduction Act, S.C. Code Ann. Sections 48-18-10 et seq.; S.C. Mining Act, S.C. Code Ann. Sections 48-20-10 et seq.; Coastal Zone Management Act, S.C. Code Ann. Sections 48-39-10 et seq.; Oil and Gas Exploration, Drilling, Transportation and Production Act, S.C. Code Ann. Sections 48-43-10 et seq.

### SECTION III. APPLICABILITY

(a) This section applies to:

(1) persons and signatories who submit official, final electronic documents to the Department to satisfy requirements of:

(A) authorized programs for which the Department has announced it is accepting specified electronic documents; or

(B) state programs for which the Department has announced it is accepting specified electronic documents;

(2) the Department's electronic document receiving system and other software applications implemented, revised, or modified as announced by the Department; and

(3) authorized programs and state programs for which the Department has announced it is accepting specified electronic documents.

(b) This section does not apply to:

(1) documents submitted via facsimile; or

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(2) electronic documents submitted via magnetic or optical media such as diskette, compact disc, digital video disc, or tape; or

(3) state programs specifically listed in Section 26-6-30 of the South Carolina Code of Laws Annotated, Chapter 6, Uniform Electronic Transactions Act.

### SECTION IV. USE OF ELECTRONIC DOCUMENT RECEIVING SYSTEM

(a) When the Department has announced that it is accepting specified electronic documents, persons who submit electronic documents to the Department to satisfy requirements of a federal or state program must use the electronic document receiving system and associated procedures designated by the Department.

(b) Persons desiring to use an electronic signature device must execute an electronic signature agreement with handwritten wet ink signature or by using an electronic identity verification system utilized by the Department.

(c) An electronic signature device is compromised if the code or mechanism is available for use by any other individual.

(d) An electronic document must bear the valid electronic signature of a signatory if that signatory is required under the federal or state program to sign the paper document for which the electronic document substitutes.

(e) An electronic signature on an electronic document is valid if it has been created with an electronic signature device that the identified signatory is uniquely entitled to use for signing that document; the device has not been compromised; and the signatory is an individual who is authorized to sign the document by virtue of his or her legal status and/or his or her relationship to the entity on whose behalf the signature is executed.

(f) The presence of an electronic signature on an electronic document submitted to the Department establishes that the signatory intended to sign the electronic document and submit it to the Department to fulfill the purpose of the electronic document.

### SECTION V. RESPONSIBILITIES OF AN AUTHORIZED ELECTRONIC SIGNATORY

(a) When the electronic signature device is used to create an individual's electronic signature, the signatory must ensure that the code or mechanism is unique to that individual at the time the signature is created, and the signatory must be uniquely entitled to use it. Approved signatories shall:

(1) protect the electronic signature device from compromise;

(2) report to the Department any evidence that the device has been compromised, within one business day of the discovery; and,

(3) prohibit any other individual from using the electronic signature device unique to his or her signature.

### SECTION VI. ENFORCEMENT

(a) An electronic signature on an electronic document submitted to the Department is the legal equivalent of a handwritten signature on a paper document submitted to the Department.

(b) Persons and signatories are subject to penalties and other remedies under Department rules or applicable statutes for failure to comply with a reporting requirement of the Department if the person or signatory reports electronically and fails to comply with the applicable provisions of this chapter, applicable statutes, Department regulations, and the electronic participation agreement.

(c) Nothing in this chapter limits the use of an electronic document, copy of record, or information derived from electronic documents as evidence in enforcement proceedings.

(d) The Department may, without advance warning, terminate use of electronic document receiving systems for individuals if, in the Department's sole determination, the use of the electronic document receiving system is performed in a manner contrary to applicable rules and regulations.

## SECTION VII. SEVERABILITY

In the event that any portion of this regulation is construed by a court of competent jurisdiction to be invalid or otherwise unenforceable, such determination shall in no manner affect the remaining portions of this regulation, which, in such case, shall remain in effect as if such invalid portions were not originally a part of this regulation.

### **Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

### **Statements of Need and Reasonableness:**

This statement of need, reasonableness and rationale was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11).

**DESCRIPTION OF REGULATION:** New Regulation entitled R.61-115, Environmental Electronic Reporting Requirements

**Purpose:** This new regulation will comply with the United States Environmental Protection Agency's (EPA) Cross-Media Electronic Reporting Rule (CROMERR) as published in the October 13, 2005, issue of the Federal Register (70 FR 59848 - 59889). Additionally, this regulation will provide consistent standards to include designated state-only programs in the Department's electronic document receiving systems in accordance with the Uniform Electronic Transactions Act (UETA) of 2004, S.C. Code Ann. Sections 26-6-10 et seq. See Preamble above and Statement of Need and Reasonableness and Rationale herein for additional information.

**Legal Authority:** Atomic Energy and Radiation Control Act, S.C. Code Ann. Sections 13-7-10 et seq.; Uniform Electronic Transactions Act, S.C. Code Ann. Sections 26-6-10 et seq.; DHEC Enabling Act, S.C. Code Ann. Sections 44-1-10 et seq.; State Underground Petroleum Environmental Response Bank Act, S.C. Code Ann. Sections 44-2-10 et seq.; Safe Drinking Water Act, S.C. Code Ann. Sections 44-55-10 et seq.; State Recreational Waters Act, S.C. Code Ann. Sections 44-55-50 et seq.; Hazardous Waste Management Act, S.C. Code Ann. Sections 44-56-10 et seq.; Infectious Waste Management Act, S.C. Code Ann. Sections 44-93-10 et seq.; Solid Waste Policy and Management Act, S.C. Code Ann. Sections 44-96-10 et seq.; Pollution Control Act, S.C. Code Ann. Sections 48-1-10 et seq.; Environmental Protection Fund Act, S.C. Code Ann. Sections 48-2-10 et seq.; Pollution Control Facilities, S.C. Code Ann. Sections 48-3-10 et seq.; Water Quality Revolving Fund Authority Act, S.C. Code Ann. Sections 48-5-10 et seq.; Stormwater Management and Sediment Reduction Act, S.C. Code Ann. Sections 48-14-10 et seq.; Erosion and Sediment Reduction Act, S.C. Code Ann. Sections 48-18-10 et seq.; S.C. Mining Act, S.C. Code Ann. Sections 48-20-10 et seq.; Coastal Zone Management Act, S.C. Code Ann. Sections 48-39-10 et seq.; Oil and Gas Exploration, Drilling, Transportation and Production Act, S.C. Code Ann. Sections 48-43-10 et seq.

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Plan for Implementation: This regulation will take effect as law upon approval by the South Carolina Board of Health and Environmental Control, the South Carolina General Assembly, and publication as a final regulation in the South Carolina State Register. The regulation will be implemented, as are other regulations. Paper and electronic copies of the final regulation will be available by publication in the South Carolina State Register. Paper copies will also be available at cost from the Department's Freedom of Information Office. Additionally, electronic copies of the regulation will be made available on the Department's website and via email transmission.

### DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

This regulation is necessary in order for the Department to continue to allow regulated entities to utilize electronic reporting in accordance with EPA's requirements as set forth in CROMERR for federally-authorized programs. Additionally, applying one set of standards through this regulation to federal programs and designated state-only programs will assist the Department in its efforts to develop an electronic document receiving system. It will also provide the Department the flexibility to enhance current electronic reporting requirements and encourage the regulated community to increase its use of electronic applications and reporting.

### DETERMINATION OF COSTS AND BENEFITS:

Internal Costs: There will be no increased cost to the State or its political subdivisions. This new regulation will benefit the Department by conserving resources associated with the review of regulated information. The benefits of electronic reporting will result in cost savings to the State by reducing the need for postage, paper, and document storage costs. Electronic reporting will increase the timeliness and availability of information while also reducing the possibility of information being transposed.

External Costs: There will be no increased cost to the regulated community. The benefits of electronic reporting will result in cost savings to the regulated community by reducing their reporting burden due to cost reductions in paper and postage.

### UNCERTAINTIES OF ESTIMATES:

None

### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

There will be no negative effect on the environment. This new regulation will support the Department's goal of promoting and protecting the health of the public and the environment by utilizing more efficient and effective methods of communicating both within the Department and with the regulated community. This regulation supports the reduction of paper and mailing cost and will result in a quicker review time for regulated information.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATIONS ARE NOT IMPLEMENTED:

There would be no detrimental effect on the environment and public health if this new regulation were not adopted; however, under CROMERR, the EPA requires states to adhere to CROMERR to submit documents electronically if EPA has delegated, authorized, or approved a state to administer the applicable program. Additionally, by including designated state-only programs in this proposed new regulation, the Department can apply the same standards to the regulated community for those programs, ensuring consistency and avoiding confusion.

**Statement of Rationale:**

This new regulation will provide a less costly and a more efficient and effective means for the regulated community and the Department to conduct business. No new scientific studies or information precipitated the development of the proposed regulation. This regulation was developed to be consistent with the federal CROMERR regulation and the South Carolina Uniform Electronic Transactions Act.

Document No. 3112

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
**CHAPTER 61**

Statutory Authority: 1976 Code Sections 13-7-10 et seq. and 48-2-10 et seq.

61-30. Environmental Protection Fees

**Synopsis:**

R.61-30, Environmental Protection Fees, was promulgated June 23, 1995, pursuant to the Environmental Protection Fund Act of 1993, S.C. Code Ann. Sections 48-2-10 et seq. This regulation prescribes those fees applicable to applicants and holders of permits, licenses, certifications, and permits. This regulation also establishes procedures for the payment of fees, provides for the assessment of penalties for nonpayment and establishes an appeals process to contest the calculation of applicability.

The Department has amended R.61-30 to revise the fees for specific radioactive material licenses, reciprocity licenses and radioactive waste transportation permits. The increased fees reflect the increase in costs to process licenses and permits.

A Notice of Drafting for the proposed amendments was published in the State Register on September 22, 2006. Notice of the Department's intent to promulgate this amendment was also published on the Department's Internet website. No relevant comments were received.

Initial approval to public notice the proposed regulation and hold a staff information forum was granted by the Board of Health and Environmental Control on December 14, 2006. A Notice of Proposed Regulation was published in the State Register on January 26, 2007 as Document No. 3112. The Notice provided an opportunity for the interested public to comment on the proposed regulation in writing, to attend a DHEC staff conducted informational forum on February 26, 2007, and to appear at a public hearing before the Department's Board. No comments were received. The Department's Board approved these regulations on June 14, 2007

Discussion of Revisions:

Increase fees for specific radioactive material licenses, reciprocity licenses and radioactive waste transportation permits.

**SECTION      REVISION**

61-30 G(5)(a)-(ee)

- (a) fee increases for Low Level Radioactive Waste Shallow Land Disposal
- (b) fee increases for Low Level Waste Interim On-site Storage and Processing
- (b)(i) fee increases for Solid Components only
- (b)(ii) fee increases for Combination Waste Streams
- (c) fee increases for Low-Level Waste Processing Services
- (c)(i) fee increases for Less than 200 FT<sup>3</sup>/year

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- (c)(ii) fee increases for Greater than 200 FT<sup>3</sup>/year
- (d) fee increases for Low-Level Waste Consolidation Services
- (e) fee increases for Decontamination, Recycling, Pilot Study Services and contaminated Equipment Storage (Non-waste)
- (f) Decommissioned Facility
  - (f)(i) fee increases for Test Reactor
  - (f)(ii) fee increases for Non-fuel Cycle
  - (f)(iii) fee increases for Fuel Cycle
- (g) fee increases for Natural Occurring from Processes
- (h) fee increases for Natural Occurring from Processes

### 61-30.G(6)(a)-(c) Radioactive Waste Transportation Permits

- (a) fee increases for Type X - Annually greater than 75 cubic feet
- (b) fee increases for Type Y - annually less than 75 cubic feet

### Instructions:

Amend R.61-30 pursuant to each instruction included with the text as follows:

### Text:

Revise R.61-30 G(5)(a)-(h) deleting old fees and replacing with the new fee schedule:

### (5) Radioactive materials licenses including reciprocity and general licenses specified in R.61-63.

(a) Low-Level Radioactive Waste Shallow Land Disposal	\$600,000
(b) Low-Level Waste Interim On Site Storage & Processing:	
(i) Solid Components Only	\$7,500
(ii) Combination Waste Streams	\$15,000
(c) Low-Level Waste Processing Services:	
(i) Less than 200 FT <sup>3</sup> /year	\$15,000
(ii) Greater than 200 FT <sup>3</sup> /year	\$75,000
(d) Low-Level Waste Consolidation Services	\$37,500
(e) Decontamination, Recycling, Pilot Study Services & Contaminated Equipment Storage (Non-Waste)	\$4,500
(f) Decommissioned Facility:	
(i) Test Reactor	\$750
(ii) Non Fuel Cycle	\$750
(iii) Fuel Cycle	\$7,500
(g) Natural Occurring from Processes	\$750
(h) Radioactive material Manufacturing/Processing	\$40,500

(fees for sections (i) - (ee) will remain the same.)

Revise R.61-30.G(6) (a)-(b)

### (6) Radioactive Waste Transportation Permits.



(a) Type X - Annually greater than 75 cubic feet	\$2,500
(b) Type Y - annually less than 75 cubic feet	\$300

**Fiscal Impact Statement:**

There will be minimal cost to the state and its political subdivisions since the program is already established. See Statement of Need and Reasonableness below.

**Statement of Need and Reasonableness:**

This Statement of Need and Reasonableness complies with SC Code Ann. Section 1-23-115(c)(1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION: Amendment of R.61-30, Environmental Protection Fees.

Purpose: The purpose of this amendment is to revise the fees charged for radioactive materials licenses including reciprocity and general licenses and review applications for radioactive waste transportation permits to ship radioactive waste into and within the State of South Carolina as specified in R.61-63 to meet the requirements of the Atomic Energy and Radiation Control Act to recover all costs associated with the program.

Legal Authority: Environmental Protection Fund Act, S.C. Code Ann. Sections 48-2-10 et seq.; and Atomic Energy and Radiation Control Act, S.C. Code Ann. Sections 13-7-10 et seq.

Plan for Implementation: Upon final approval by the Board of Health and Environmental Control, review and approval by the General Assembly, and publication in the State Register as a final regulation, amended regulations will be provided in hard copy and electronic formats to the community at cost through the Department's Freedom of Information Office and at the Bureau web site.

**DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:**

South Carolina is an Agreement State, and as such, the U.S. Nuclear Regulatory Commission (NRC) has relinquished authority to the State to regulate the use of radioactive materials. The Atomic Energy and Radiation Control Act requires the Department to recover all costs associated with the program through fees.

The proposed fee increases are designed to cover the costs of radioactive materials licenses, the costs to receive and review applications for radioactive materials permits and radioactive waste transportation permits. The increased fees reflect the increase in costs to process the licenses and permits.

**DETERMINATION OF COSTS AND BENEFITS:**

The NRC requires Agreement States who license and inspect facilities utilizing radioactive materials to successfully complete specified training courses. Prior to 1996, NRC funded this training. It is now the State's responsibility to fund this training.

Processing applications for permits and licenses for radioactive materials and permits for radioactive waste transportation requires considerable commitment of the Department's fiscal resources. Inflation has increased the costs associated with training. Program costs have been incurred for increased security requirements of licensed material, contributing to an over all increase in costs to run an effective program.

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Income to run the program has decreased. A lack of state appropriations was compounded by budget cuts. A reduction in the revenue stream from the current fee structure decreased income as did restrictions on the amount of waste allowed for burial within South Carolina. These restrictions on the amount of waste allowed for burial within South Carolina also resulted in a reduction in the number of radioactive waste transport permits being issued. This all served to reduce the monies used to fund the program, necessitating the implementation of this fee amendment

The fees for radioactive waste transportation permit applications and radioactive materials licenses have not been increased since 1995. Since FY 2000, the fees have generated less money than needed to operate the program. Surplus funds were used to make up the shortfall but the surplus funds will be exhausted at the end of FY 2007, leaving the program under funded and unable to carry out statutory mandates.

Monies generated over and above the costs of the current program would go into surplus funds to cover the costs of inflation and increased costs incurred over the next few years. Costs are projected to increase by at least 4% per year.

The additional cost to the regulated community is a result of the requirements under the Atomic Energy and Radiation Control Act that the Department must recover all costs associated with the program through fees.

### UNCERTAINTIES OF ESTIMATES:

The Department can be reasonably accurate on the costs required to run the program.

### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

The overall effects of these rules are expected to be beneficial to the public health and environment. Review of applications and permits is necessary to protect both the natural resources of South Carolina and the health of its citizens. Security of licensed materials is essential for the safety of the public. Proper funding will enable the program to meet the requirements of the Atomic Energy Act and protect the safety and well being of the public.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

A greater risk of public exposures exists if the program is not able to carry out timely and thorough inspections with well trained staff. Federal Law requires this program to operate at a specific level of activity and with trained personnel.

### Statement of Rationale:

This is an administrative decision by the Department to amend R.61-30 to have fees more closely reflect the costs incurred in implementing the program. See Statement of Need and Reasonableness.

Resubmitted: April 17, 2008

Document No. 3139  
**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
 CHAPTER 61

Statutory Authority: 1976 Code Section 44-1-140

61-54. Ice

**Synopsis:**

The Department of Health and Environmental Control has substantially amended R.61-54, Ice. This regulation was promulgated pursuant to S.C. Code Section 44-1-140 et seq, and was last amended in 1972; the requirements in it have become outdated and obsolete. There have been significant changes in technology and manufacturing practices since the last amendment. It was necessary to strike the text of the existing regulation in total and rewrite the regulation in entirety to meet current standards. The amendments will bring the Regulation in compliance with current industry and Good Manufacturing Practices (GMP's) set forth by the Food and Drug Administration, and assure consumers that the latest sanitation requirements are being met by the wholesale ice industry. Language in the regulation has been updated to correlate with changes in the administrative appeals process pursuant to Act 387 (2006). See Discussion of Proposed Revision below and Statement of Need and Reasonableness herein.

**Discussion of Changes requested by the  
 S.C. House Agriculture, Natural Resources and Environmental Affairs Committee  
 Pursuant to letter dated April 16, 2008:**

SECTION/REVISION

Section XII.A.4. Language was added to ensure that retail operations that bag and sell ice to the public must be permitted and inspected by the Department.

**Discussion of Revisions of R.61-54, as submitted  
 to the S.C. General Assembly for review by the Department of  
 Health and Environmental Control on November 8, 2007:**

The text of regulation will be replaced in its entirety by the proposed new text.

**Instructions:** Replace R.61-54 in entirety with this amendment.

**Text:**

R.61-54. Wholesale Commercial Ice Manufacturing

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### SECTION I. PURPOSE

This regulation sets forth minimum health standards, procedures, and practices to ensure that wholesale ice is manufactured in South Carolina in a safe and wholesome manner.

### SECTION II. SCOPE

This regulation shall apply to all persons in South Carolina who manufacture or package ice that will be sold on a wholesale basis for human consumption in South Carolina.

### SECTION III. DEFINITIONS

**ADEQUATE** - shall mean substantial compliance with acceptable health standards, procedures and practices.

**ADULTERATED** or **ADULTERATION** - the presence or addition of any harmful or unwholesome substance, article, object, or other ingredients which may dilute or lower the quality of the food product involved or any substance which is prohibited by law or regulation in food product.

**APPROVED** - acceptable to the Department based on a determination as to conformance with applicable standards and good public health practice.

**CORING** – shall mean the process of pumping or removing a small amount of water that accumulates in the center of a block of ice in the freezing process. This water is mineral-laden and is removed to produce a pure, mineral-free block of ice.

**DEPARTMENT** - the South Carolina Department of Health and Environmental Control acting through its authorized representatives.

**EASILY CLEANABLE** - surfaces that are readily accessible and made of such materials and finishes and fabricated in such a way that residue may be effectively removed by normal cleaning methods.

**EMPLOYEE** – shall mean any person working in an ice plant, or ice production area in any commercial establishment, who transports ice or ice containers, who engages in ice manufacture, processing, packaging, storage, or distribution, or who comes into contact with any ice equipment.

**EQUIPMENT** – all grinders, crushers, chippers, ice makers, shavers, scorers, saws, cubers, can fillers, drop tubes, needles, core sucking devices, conveyors, rake bins, augers, baggers, and similar items used in ice plants.

**FOOD-CONTACT SURFACE** - the surface of any object coming into direct contact with ingredients and finished products during storage and manufacture. This shall include any surface upon which the product routinely may drip, drain, or be drawn into, as part of normal processing.

**ICE** – shall mean the product, in any form, obtained as a result of freezing water by mechanical or artificial means.

**ICE PLANT** – any commercial establishment, together with the necessary appurtenances, in which ice is manufactured or processed, packaged, distributed, or offered for sale for human consumption on a wholesale basis.

**ICE VENDING MACHINES** – any self-service machines that act as stand-alone units, and may operate without full time service personnel. These units are activated by the insertion of money; the ice is bagged automatically or dispensed in bulk outside to the customer.

**PACKAGED ICE** – ice products packaged by approved manufacturers and sold through retail outlets.

**PERSON** - any individual, plant operator, partnership, company, corporation, trustee, association, or a public or private entity.

**PEST** - any animals or insects including, but not limited to, birds, rodents, flies and larvae.

**PROCESSING** – the grinding, crushing, flaking, cubing, or any other operation which changes the physical characteristics of ice or packaged ice for human consumption.

**PRODUCT AREA** – the production area and all other areas where the product, ingredients, or packaging materials are handled or stored, and shall include any area related to the manufacturing, packing, handling, and storage of ice intended for sale for human consumption.

**RETAIL ICE MERCHANTS** – merchants (i.e. convenience stores, grocery stores) who produce ice products and sell directly to their customers; these are regulated under DHEC Regulation 61-25, Retail Food Establishments.

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**SANITIZE** - means the application of cumulative heat or chemicals on cleaned food-contact surfaces that, when evaluated for efficacy, is sufficient to yield a reduction of 5 logs, which is equal to a 99.999% reduction, of representative disease microorganisms of public health importance.

**SHALL** – the item or condition discussed is mandatory.

**SHOULD** or **MAY** – the item or condition discussed is preferred, but not mandatory.

**SINGLE-SERVICE ITEMS** – those items, such as packaging materials, which are intended by the manufacturer and generally recognized by the public as being for one usage only, then to be discarded.

**UNPACKAGED ICE** – ice products from approved manufacturers that are not packaged or put into packets (usually produced in block form).

**UTENSILS** – any multi-use cans, buckets, tubs, pails, covers, containers, tongs, picks, shovels, scoops, and similar items used in the manufacture, handling, and transport of ice.

**UNDESIRABLE MICROORGANISMS** - those microorganisms which are considered to be of public health significance, which subject food to decomposition, which indicate that food is contaminated with filth, or which otherwise may cause food to be adulterated.

**WHOLESALE ICE** – ice products manufactured in large quantities to be sold on the wholesale market.

### SECTION IV. PERSONNEL

#### A. DISEASE CONTROL

Any person who by medical examination or supervisory observation, is shown to have, or appears to have, an illness, open lesion, including boils, sores, or infected wounds, or any other abnormal source of microbial contamination by which may contribute to the reasonable possibility of food, food-contact surfaces, or food-packaging materials becoming contaminated, shall be excluded from any operations expected to result in such contamination, until the condition is corrected. All personnel shall be instructed to report such health conditions to their supervisors.

#### B. CLEANLINESS

All persons working in direct contact with food, food-contact surfaces, and food-packaging materials shall conform to hygienic practices while on duty to the extent necessary to protect against contamination of food. Methods for maintaining cleanliness to prevent food contamination include, but are not limited to:

1. Wearing outer garments suitable for the operation in a manner that protects against the contamination of food, food-contact surfaces, or food-packaging materials.

2. Maintaining adequate personal cleanliness.

3. Washing hands thoroughly (and sanitizing, if necessary, to protect against contamination with undesirable microorganisms) in an adequate hand-washing facility before starting work, after each absence from the work station, and at any other time when the hands may have become soiled or contaminated. Signs shall be posted reminding employees to wash their hands before returning to work.

4. Removing all insecure jewelry or other objects which might fall into food, equipment, or containers, and removing hand jewelry that cannot be adequately sanitized during periods in which food is manipulated by hand. If such hand jewelry cannot be removed, it should be covered by material that can be maintained in an

intact, clean, and sanitary condition and which effectively protects against the contamination by these objects of the food, food-contact surfaces, or food-packaging materials.

5. Maintaining gloves used in food handling in an intact, clean, and sanitary condition. These gloves should be of an impermeable material.

6. Where appropriate, wearing in an effective manner, hairnets, headbands, caps, beard covers, or other effective hair restraints.

7. Storing clothing or other personal belongings in areas other than where food is exposed or where equipment or utensils are washed.

8. Confining the following to areas other than where food may be exposed or where equipment or utensils are washed: eating food, chewing gum, drinking beverages, or using tobacco.

9. Taking any other necessary precautions to protect against contamination of food, food-contact surfaces, or food-packaging materials with microorganisms or foreign substances including, but not limited to, perspiration, hair, cosmetics, tobacco, chemicals, and medicines applied to the skin.

### C. EDUCATION AND TRAINING

Personnel responsible for identifying sanitation failures or food contamination should have a background in education or experience, or a combination thereof, to provide a level of competency necessary for production of clean and safe food. Food handlers and supervisors should receive appropriate training in proper food-handling techniques and food protection principles, and should be informed of the danger of poor personal hygiene and unsanitary practices.

### D. SUPERVISION

Responsibility for ensuring compliance by all personnel with all requirements of this section shall be clearly assigned to competent supervisory personnel.

## SECTION V. GROUNDS, BUILDINGS AND FACILITIES

### A. GROUNDS

The grounds around an ice plant under the control of the operator shall be kept in such condition to protect against the contamination of its products. The methods for adequate maintenance of grounds include, but are not limited to:

1. Properly storing equipment, removing litter and waste, and cutting weeds or grass in the immediate vicinity of plant buildings or structures that may constitute an attractant, breeding place, or harborage for pests.

2. Maintaining roads, yards, and parking lots so that they do not constitute a source of contamination in areas where food is exposed.

3. Adequately draining areas that may contribute to the contamination of food by seepage, foot-borne filth, or providing a breeding place for pests.

4. Operating waste treatment and disposal systems in an adequate manner so that they do not constitute a source of contamination in areas where food is exposed.

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### B. BUILDING CONSTRUCTION AND DESIGN

Ice plant buildings and structures shall be suitable in size, construction, and design to facilitate maintenance and sanitary operations for food-manufacturing purposes and to prevent drip and condensation from fixtures, ducts and pipes from contaminating foods, food-contact surfaces or food containers. Sufficient space shall be provided for the placement of equipment and storage of materials as deemed necessary for the proper maintenance of sanitary operations and production of safe food. Ice plants shall meet, but not be limited to, the following:

#### 1. Required Rooms

Ice for human consumption shall be processed and packaged only in rooms used solely for those operations. Ice for human consumption shall not be processed or packaged on open platforms or on trucks or delivery vehicles, or in any manner which would permit contamination from overhead drip, condensation, dirt or other contaminants.

#### 2. Floors

(a) The floors of ice manufacturing rooms shall be constructed of concrete or equally impervious, easily cleanable material, and shall be kept clean, in good repair, and properly sloped to trapped drains to prevent pools of standing water after flushing.

(b) The floors of ice storage, packaging and accessory rooms shall be easily cleanable, and be kept clean and in good repair at all times.

#### 3. Walls and Ceilings

The walls and ceilings in ice manufacturing, packaging, storage and accessory rooms shall be smooth, washable and kept clean and in good repair at all times.

#### 4. Lighting

(a) Adequate lighting shall be provided in all areas of the plant. A minimum of 20 foot-candles of light should be provided in all working areas, and a minimum of 10 foot-candles in all storage areas.

(b) Adequate protection from glass breakage and falling debris shall be provided for all light bulbs and fixtures located over exposed food or unsealed packages in any step of preparation.

#### 5. Ventilation

(a) Adequate ventilation or control equipment shall be provided to minimize odors, vapors and moisture from accumulating in areas where ice for human consumption is manufactured.

(b) Pressurized ventilating systems shall have a filtered air intake.

(c) Fans and other air-moving equipment shall be located and operated in a manner minimizing the potential for contaminating food and unsealed packages.



## 6. Doors and Windows

(a) All openings into ice manufacturing rooms shall be adequately protected against the entrance of dust and insects by tight-fitting, self-closing doors, closed windows, screening, air curtains, vinyl or rubber strip curtains, or by other means approved by the Department.

(b) Screens for windows, doors, skylights, transoms, intake and exhaust air ducts, and other openings into ice manufacturing rooms shall be tight-fitting and free of breaks. Screening materials shall not be less than sixteen mesh to the inch.

## C. WATER SUPPLY

Each ice plant shall be equipped with adequate facilities and accommodations including, but not limited to, the following:

1. The water supply shall be from a public water system approved by the Department.

2. The design, operation and maintenance of water purification systems used to further treat potable water shall be approved by the Department. They shall not be operated beyond their rated capacity and shall be maintained in a clean, sanitary condition at all times. If water is treated at the ice plant, the use of chemicals and additives shall be in accordance with regulations promulgated under the Food Additives Amendment to the Federal Food, Drug, and Cosmetic Act.

3. Potable running water at a suitable temperature, and under pressure as needed, shall be provided in all areas where required for the ice manufacturing, for the cleaning of equipment, utensils, and containers, and for employee sanitary facilities.

4. All water storage and cooling tanks shall be of noncorrosive material, properly covered, air vents properly filtered, clean, free from dust both inside and outside, and the inlet and outlet so arranged as to prevent contamination during filling and emptying.

## D. DISPOSAL OF WASTES

1. All liquid wastes shall be disposed of by connection to a public sewer or as approved by the Department.

2. Rubbish, refuse, and garbage shall be so handled, stored and disposed of as to minimize the development of odor, prevent waste from becoming an attractant and harborage or breeding place for vermin, and prevent contamination of food, food-contact surfaces, ground surfaces and water supplies.

## E. PLUMBING

Plumbing shall meet all applicable state and local plumbing laws, ordinances and regulations, and shall be sized, installed and maintained to:

1. Carry sufficient quantities of water to required locations throughout the ice plant.

2. Properly convey sewage and liquid disposable waste from the ice plant.

3. Not constitute a source of contamination to foods, food products or ingredients, water supplies, equipment, or utensils or create an unsanitary condition.

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4. Provide adequate floor drainage in all areas where floors are subject to flooding-type cleaning or where normal operations release or discharge water or other liquid waste on the floor.

5. Prevent backflow or back-siphonage from, or cross-connection between, piping systems discharging wastewater or sewage and piping systems carrying water for ice manufacturing.

6. Non-potable water piping shall not be connected to equipment or have outlets in the brine circulation tanks.

### F. TOILET FACILITIES

1. Toilet facilities shall be approved by the Department, shall be adequate, conveniently located, accessible to employees at all times, and shall conform to applicable building and plumbing codes.

2. Toilet room floors shall be easily cleanable. Toilet room floors should be properly sloped to trapped drains.

3. Toilet room walls and ceilings shall be of sound construction. Toilet room walls shall be smooth and washable to at least a wainscot height.

4. Toilet rooms shall not open directly into ice production or storage rooms.

5. Toilet room doors shall be self-closing.

6. Toilet rooms shall be adequately ventilated. Toilet room windows opened for ventilation shall be properly screened.

7. Toilet rooms shall be kept clean, in good repair and free of insects at all times.

8. Approved hand-washing signs shall be posted in each toilet room used by production employees.

9. Toilet tissue, soap, individual towels and trash receptacles shall be provided.

### G. DRESSING ROOMS AND LOCKER AREAS

1. If employees routinely change clothes within the ice plant, rooms or areas shall be designated and used for that purpose and shall be kept clean and in good repair.

2. Adequate lockers or other suitable facilities shall be provided and used for the orderly storage of employee clothing and other belongings and shall be kept clean. Personnel lockers shall not be located in ice manufacturing, packaging, or storage rooms.

### H. HAND-WASHING FACILITIES

1. An adequate number of lavatories, convenient to toilet rooms and production areas, shall be provided.

2. Each lavatory shall be provided with hot and cold running water, soap and approved sanitary towels, or other approved hand-drying devices. If disposable towels are used, easily cleanable waste receptacles shall be conveniently located near the hand washing facilities.

## I. SANITARY OPERATIONS

### 1. General Maintenance

Buildings, fixtures, and other physical facilities of the ice plant shall be kept in good repair and shall be maintained in a sanitary condition. Cleaning operations shall be conducted in such a manner as to minimize the danger of contamination of food and food-contact surfaces. Detergents, sanitizers, and other supplies employed in cleaning and sanitizing procedures shall be free of significant microbiological contamination and shall be safe and effective for their intended uses. Only such toxic materials as are required to maintain sanitary conditions, for use in laboratory testing procedures, for plant and equipment maintenance and operation, or in manufacturing or processing operations shall be used or stored in the ice plant. These materials shall be identified, used only in such manner and under conditions as will be safe for their intended uses, and stored in an approved area and manner so as to minimize the danger of contamination of food and food-contact surfaces.

### 2. Animal and Vermin Control

No animals or birds shall be allowed in any area of the ice plant. Effective measures shall be taken to exclude pests from the processing areas and to protect against the contamination of foods in or on the premises by animals, birds, and vermin (including, but not limited to, rodents and insects). The use of insecticides or rodenticides is permitted only under such precautions and restrictions as will prevent the contamination of food or packaging materials with illegal residues. Insecticides and rodenticides shall be properly labeled and stored in an approved area and manner so as to minimize the danger of contamination of food and food-contact surfaces.

## SECTION VI. EQUIPMENT AND UTENSILS

A. All ice plant equipment and utensils shall be so designed and of such material and workmanship as to be adequately cleanable, and shall be properly maintained and kept clean and in good repair. The design, construction and use of equipment and utensils shall preclude the adulteration of food with lubricants, fuel, metal and glass fragments, contaminated water, or any other contaminants. Only food grade equipment lubricants shall be used and equipment lubrication shall not contaminate the ice.

B. All equipment shall be so installed and maintained to facilitate the cleaning of the equipment and all adjacent spaces.

C. All food-contact surfaces shall be corrosion-resistant when in contact with food and shall be made of nontoxic materials and designed to withstand the environment of their intended use and any corrosive action by the food, cleaning compounds and sanitizing agents. Seams on food-contact surfaces shall be smoothly bonded. Conveyor surfaces shall be of impervious material and shall protect ice from contaminants that may result from shredding, flaking, peeling, or fragmentation of the conveyor surface.

D. All equipment shall be designed to prevent food-contact surfaces from being contaminated by clothing or personal contact.

E. All equipment shall be constructed so that drip or condensation from fixtures, ducts, pipes, etc., does not contaminate food, food-contact surfaces or food-packaging materials.

F. All equipment that is in the manufacturing or food-handling areas and that does not come in contact with food shall be so constructed that it can be kept in a clean condition.

G. Approved washable covers shall be provided over exposed containers prior to filling and between filling and sealing in all areas where contamination is reasonable possible.

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H. Air for water agitation shall be filtered and free of contaminants. The compressor used to supply air for water agitation shall be designed to deliver oil-free air. Air lines and core sucking (vacuum) devices shall be used as needed to produce ice free of rust or other foreign materials.

I. Ice cans shall be leak proof and the inner surfaces of such containers shall be free of corrosion. Freezing tank covers of acceptable materials shall be designed and constructed to protect ice containers from splash, drip, and other contamination. They shall be easily cleanable and kept clean and in good repair. Such covers shall be equipped with rings or similar devices when hooks are used for pulling. Can or tank covers, and the ledges or sides of the tank upon which the cover rests, shall be cleaned as often as necessary to keep them in a sanitary condition.

### SECTION VII. PRODUCTION AND PROCESS CONTROLS

#### A. PROCESS CONTROLS

1. All operations in the receiving, inspecting, transporting, segregating, preparing, manufacturing, packaging and storing of food shall be conducted in accordance with adequate sanitation principles.

2. Appropriate quality control operators should be employed to ensure that food is suitable for human consumption and that food-packaging materials are safe and suitable. Overall sanitation of the ice plant shall be under the supervision of one or more competent individuals assigned responsibility for this function. All reasonable precautions shall be taken to ensure that production procedures do not contribute contamination from any source.

3. Chemical, microbiological, or extraneous material testing procedures shall be used, where necessary, to identify sanitation failures or possible food contamination. All food that has become adulterated shall be rejected, or if permissible, treated or processed to eliminate the contamination.

4. Raw materials and other ingredients shall be inspected and segregated or otherwise handled as necessary to ascertain that they are clean and suitable for processing into ice manufacturing and shall be stored under conditions that will protect against contamination and minimize deterioration.

5. Raw materials and other ingredients shall be properly labeled and stored in containers designed and constructed so as to protect against contamination.

6. Ice products manufactured for human consumption shall not be stored, transported, processed or bagged through equipment or lines used for any non-food product.

7. Adequate provisions shall be made so that hands shall not come in direct contact with the ice at any time during manufacturing, processing, packaging, and storage.

8. Packaging shall be done with non-toxic materials and in a sanitary manner. All packaged ice products must be tightly sealed. Bags used for the packaging of ice shall be stored in a dry rodent and dust proof environment. The storage of packaging supplies shall be on pallets or raised above floor level and all partially used supplies shall be kept in closed containers. The bags shall be of sound strength and quality to prevent fracture or tearing during handling and be constructed of FDA approved materials. Bags shall be restricted for reuse, or repackaging.

9. All frozen unpackaged ice blocks intended for sale for human consumption or for the refrigeration of food products shall be washed thoroughly with potable water, packed and handled in a manner to prevent contamination. Water used for rinsing or washing shall not be reused and shall be disposed of as liquid waste. Only potable water shall be used in sprays and in the thaw tanks for the removal of ice from cans. Ice shall not come in direct contact with water in dipping wells.

## B. CLEANING AND SANITIZING OF EQUIPMENT AND UTENSILS

All utensils and food-contact surfaces of equipment shall be cleaned as frequently as necessary to prevent contamination of food and food products. Non food-contact surfaces of equipment used in the operation of ice plants shall be cleaned as frequently as necessary to minimize accumulation of dust, dirt, food particles and other debris. Where necessary to prevent the introduction of undesirable microbiological organisms into food products, all utensils and food-contact surfaces of equipment used in the plant shall be cleaned and sanitized prior to such use and following any interruptions during which such utensils and food-contact surfaces may have become contaminated. Where such equipment and utensils are used in a continuous production operation, the food-contact surfaces of such equipment and utensils shall be cleaned and sanitized on a predetermined schedule using adequate methods for cleaning and sanitizing. All cleaning and sanitizing agents shall be free of undesirable microorganisms, shall be safe and adequate under the conditions of use, shall have labels which properly identify the contents, and shall be properly stored. Any facility, procedure, machine, or device may be acceptable for cleaning and sanitizing equipment and utensils if it is established that such facility, procedure, machine, or device will routinely render equipment and utensils clean and provide adequate sanitizing treatment. All cleaned and sanitized equipment and utensils shall be transported and stored to assure complete drainage and stored in a manner that protects the food-contact surfaces from contamination.

## SECTION VIII. WAREHOUSING AND DISTRIBUTION

A. All product storage and holding areas are to be refrigerated and shall be cleaned as often as necessary to keep them free of contamination.

B. While being transported or delivered, ice shall be protected from contamination from dust, dirt, or any other sources. The ice compartment of vehicles used to transport or deliver ice shall be of cleanable construction and shall be kept clean and in good repair. The ice compartment used for transport or delivery shall be insulated or refrigerated to maintain the ice in a frozen state. Vehicles used to transport unpackaged ice shall be constructed to be fully enclosed. All interior surfaces shall be constructed of food grade quality materials and shall be thoroughly cleaned prior to each loading.

## SECTION IX. LABELING

All packaged ice labeling shall conform to applicable federal and state labeling laws.

## SECTION X. EXAMINATION AND CONDEMNATION OF UNWHOLESOME OR CONTAMINATED RAW MATERIALS OR FINISHED PRODUCT

A. Samples of ice and other substances shall be taken and examined by the Department as often as may be necessary for the detection of unwholesomeness or adulteration.

B. The Department may condemn and forbid the sale of, or cause to be removed and destroyed, any ice products which are unwholesome or adulterated.

## SECTION XI. ICE VENDING MACHINES

A. Owner/operators of ice vending machines within the state must file an application provided by the Department. This application shall include name and address of ice vending machine's owner/operator, location, products to be manufactured, applicant's signature and such other information deemed necessary by the Department to determine compliance with this regulation. However, no permit will be issued. This information will be held on file for the purpose of compliant investigations or product sampling for detection of unwholesomeness or adulteration, or any other circumstance which may constitute an imminent hazard to public health.

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B. All ice vending machines must be properly connected to Department approved water supply and sewage disposal facilities.

### SECTION XII. ENFORCEMENT PROCEDURES

#### A. PERMITS

1. It shall be unlawful for any person to manufacture wholesale ice products in South Carolina without a valid permit issued by the Department for the specific ice plant. Permits are not transferable.

2. Any person desiring to manufacture wholesale ice products in South Carolina shall make written application for a permit on the appropriate application form provided by the Department. This form shall include name and address of the ice plant's owner; the location and type of the facility; the type of products to be manufactured; the applicant's signature; and such other information deemed necessary by the Department to determine compliance with this regulation.

3. A permit is valid as long as the ice plant continues in operation under the same ownership or until the permit is revoked or suspended.

4. Any retail facility that produces and bags ice for sale to the public shall have a permit issued under Regulation 61-25, Retail Food Establishments.

#### B. SUBMISSION OF PLANS

When an ice plant is constructed or extensively remodeled and when an existing structure is converted for use as an ice plant, properly prepared plans and specifications for such construction, remodeling, or conversion should be submitted to the Department for review and approval before construction, remodeling, or conversion. The plans and specifications should indicate the proposed layout, arrangement, mechanical plans, and construction materials of work areas, and the make and model number of proposed fixed equipment and facilities. The Department shall approve the plans and specifications if they meet the requirements of this regulation. In the absence of plan approval, issuance of the ice plant permit shall be determined by compliance with all applicable requirements of this regulation.

#### C. INSPECTIONS

Inspections of ice plants shall be performed as frequently as deemed necessary to insure compliance with this regulation.

#### D. ACCESS

Representatives of the Department, after proper identification, shall be permitted to enter any ice plant at any reasonable time for the purpose of making inspections to determine compliance with this regulation. The representatives shall be permitted to examine the records of the establishment to ascertain information relative to the purchasing, receiving, and use of such food products or other supplies used in the manufacturing of wholesale ice products. It shall be unlawful for any representatives of the Department who, in an official capacity, obtain any information under the provisions of this regulation which is entitled to protection as a trade secret (including information as to quantity, quality, source or disposition of wholesale ice products, or results of inspections or tests thereof) to use such information to their own advantage or to reveal it to any unauthorized person.

## E. REPORT OF INSPECTIONS

When an inspection of an ice plant is conducted, a copy of the completed inspection report form shall be furnished to the permit holder, manager or other duly authorized representative.

## F. RECIPROCITY

Upon receiving from any person, entity, or any regulatory agency outside this state, a report of a possible violation of this regulation by a permit holder, the Department may conduct such inspection or investigation as it deems appropriate. Upon receiving information that wholesale ice products manufactured in the state or imported from other states and introduced into this state may have been manufactured in violation of applicable state or federal law or not in conformance with prevailing and applicable standards and good public health practices, the Department may notify appropriate regulatory authorities located outside this state and request that such authorities take appropriate action.

## G. RECALL

Each ice plant operator shall develop and maintain procedures for the notification of regulatory officials, consumer notification, and product recall, and shall implement any of these procedures as necessary with respect to any product for which the operator or the Department knows or has reason to believe circumstances exist that may adversely affect its safety for the consumer. If the Department determines, based upon representative samples, risk analysis, information provided by the ice supplier, and other information available to the Department, that the circumstances present an imminent hazard to the public health and that a form of consumer notice or product recall can effectively avoid or significantly minimize the threat to public health, the Department may order the ice supplier to initiate a level of product recall or, if appropriate, issue a form of notification to customers. The ice supplier shall be responsible for disseminating the notice in a manner designed to inform customers who may be affected by the problem.

## H. SUSPENSION OF PERMIT

1. Permits may be suspended temporarily by the Department for repeated violation of the same requirement on two consecutive inspections, for total number of violations, or for interference with the Department in the performance of its duty. Prior to permit suspension, the Department shall notify, in writing, the permit holder, manager or other duly authorized representative, of the specific reasons for which the permit is to be suspended and that the permit shall be suspended at the end of the 15 days following service of such notice. While the permit is suspended, ice operations shall immediately cease, and the permit shall remain suspended until the reasons for the suspension have been corrected.

2. The Department may, without warning or notice, suspend the permit to operate an ice plant when it is determined that the operation of the ice plant constitutes an imminent hazard to public health. Following immediate permit suspension, all ice manufacturing operations shall immediately cease. The Department shall promptly notify, in writing, the permit holder, manager or other duly authorized representative, of the specific reasons for which the permit was suspended.

## I. REVOCATION OF PERMIT

1. The permit may be revoked for failure to correct deficiencies within prescribed time limits or for repeated violations of any of the requirements of this regulation on two consecutive inspections, or for the interference with the Department in the performance of duty.

2. Prior to revocation, the Department shall notify, in writing, the permit holder, manager or other duly authorized representative, of the specific reasons for which the permit is to be revoked and that the permit shall be revoked at the end of the 15 days following service of such notice.

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3. Any person whose permit is revoked shall not be eligible to apply for repermitting within one year from the date of revocation. Any person whose permit has previously been revoked and who obtains a subsequent permit and violates the provisions of this regulation, resulting in revocation of the ice plant's permit for the second time, shall not be granted another permit.

### J. SERVICE OF NOTICES

A notice provided for in this regulation is properly served when it is delivered to the permit holder, manager or other duly authorized representative, or when it is sent by registered or certified mail, return receipt requested and delivery restricted to the addressee, to the last known address of the ice plant's permit holder.

### K. CONTESTED DECISIONS

A Department decision involving the issuance, denial, suspension, or revocation of a permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

### L. ENFORCEMENT PROVISIONS

This regulation is issued under the authority of South Carolina Code Ann. Section 44-1-140 (1976, as amended) and shall be enforced by the Department. Violation of this regulation shall be punishable in accordance with South Carolina Code Ann. Section 44-1-150 (1976, as amended).

#### **Fiscal Impact Statement:**

The Department estimates there will be no new costs imposed on the State or its political subdivisions by this regulation.

#### **Statement of Need and Reasonableness and Rationale:**

The Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11):

#### DESCRIPTION OF REGULATION:

**Purpose:** The amendments will bring the Regulation in compliance with current industry and Good Manufacturing Practices (GMP's) set forth by the Food and Drug Administration, and assure consumers that the latest sanitation requirements are being met by the wholesale ice industry. Language in the regulation is being updated to correlate with changes in the administrative appeals process pursuant to Act 387 (2006).

**Legal Authority:** The legal authority for R.61-54 is Section 44-1-140 et seq., S.C. Code of Laws.

**Plan for Implementation:** The amendments will take effect upon approval by the Board of Health and Environmental Control and the General Assembly, and publication in the State Register. The regulated community will be provided copies of the regulation.

#### DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

R.61-54 ensures that consumers are receiving safe, unadulterated frozen packaged/unpackaged (block) ice. The Regulation was amended last in 1972, and the requirements in it have become outdated and obsolete. There have been significant changes in technology and manufacturing practices since the last amendment. It is necessary to strike the text of the existing regulation in total and rewrite the regulation in entirety to meet



current standards. The amendments will bring the Regulation in compliance with current industry and Good Manufacturing Practices (GMP's) set forth by the Food and Drug Administration, and assure consumers that the latest sanitation requirements are being met by the wholesale ice industry. Language in the regulation is being updated to correlate with changes in the administrative appeals process pursuant to Act 387 (2006).

**DETERMINATION OF COSTS AND BENEFITS:**

There are no anticipated new costs associated with the implementation of this regulation. There will be a benefit to South Carolina's environment and the health of its citizens by ensuring that consumers are receiving safe, unadulterated frozen packaged/unpackaged (block) ice.

**UNCERTAINTIES OF ESTIMATES:**

None.

**EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:**

The proposed regulation will ensure that consumers are receiving safe, unadulterated frozen packaged/unpackaged (block) ice.

**DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:**

Not implementing the regulation will prevent assurance that sanitary standards are being met in the wholesale ice industry; this could have a detrimental effect on the health of South Carolina's citizens and visitors.

**Statement of Rationale:**

The determination to revise this regulation was in response to the need for the regulation to reflect to current industry and Good Manufacturing Practices (GMP's) set forth by the Food and Drug Administration, and assure consumers that the latest sanitation requirements are being met by the wholesale ice industry.

Resubmitted: February 29, 2008

Document No. 3154

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
CHAPTER 61**

Statutory Authority: 1976 Code Sections 44-1-140(11), 44-1-150 and 48-1-10 to 48-1-350

61-56. Individual Sewage Treatment and Disposal Systems

**Synopsis:**

The Department of Health and Environmental Control has substantially amended R.61-56. Individual Sewage Treatment and Disposal Systems. This regulation was promulgated pursuant to S.C. Code Section 44-1-140 (11) et seq. and Sections 48-1-10 to -350, S.C. Code of Laws, and was last amended on June 27, 1986; since the last revision, there have been numerous changes in the technologies of design and installation of onsite wastewater systems. It was necessary to strike the text of the existing regulation in total and rewrite the regulation in its entirety to incorporate the extensive changes. The amendments include updates in nomenclature and technology, clarification of site requirements and system requirements, and changing the title of the regulation. Amendments also incorporate construction standards into the regulation that heretofore

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had been defined in agency standards. Language in the regulation has been updated to correlate with changes in the administrative appeals process pursuant to 2006 S.C. Acts 387.

**Discussion of Changes requested by the  
S.C. Senate Medical Affairs Committee  
Pursuant to letter dated February 28, 2008:**

### SECTION/REVISION

103.2(4) Language that limited the validity of permits issued prior to the effective date of this regulation to five years after the effective date has been removed.

Section 303 Language has been added that delays the effective date of Sections 200.6(2) and 200.6(4) until January 1, 2009, and allows existing Sections V.E(b) and (c) to remain in effect until that date.

**Discussion of Revisions of R.61-56, as submitted  
to the S.C. General Assembly for review by the Department of  
Health and Environmental Control on January 9, 2008:**

### SECTION/REVISION

Title. The title of the regulation is revised to reflect current nomenclature.

Contents. A table of contents has been added.

References: A References section has been added to clearly identify statutes, regulations and standards referenced within the text of R. 61-56.

Section 100. Purposes and Scope. The title and wording of this section has been changed to reflect more accurate nomenclature and to further clarify the purpose and scope of the regulation.

Section 101. Sixty-one new definitions as follows: Accessible, Alternative System, Alternative Infiltration Trench Products, Applicant, Campground, Canal, Color Charts, Critical Area Line, Curtain Drain, Department, Ditch, Effluent, Embankment, Environmentally Sensitive Waters, Existing System, Expansive Soils, Failing Onsite Wastewater System, Fiberglass Reinforced Plastic, Field Book for Describing and Sampling Soils, Flexural Modulus of Elasticity, Flexural Strength, Gel Coating, Grease Trap, Gleying, Industrial Process Wastewater, Long-Term Acceptance Rate, Mottling, NSF Standard #14, Operation and Maintenance, Parent Material, Plasticity, Primary Treatment, Professional Soil Classifier, Public Water System, Pump Chamber, Receptor, Redox Depletions, Redoximorphic Features, Remote Subsurface Wastewater Infiltration Area (Drain Field) Repair or Replacement Area, Restrictive Horizon, Resin, Saproliite, Sealant, Septic Tank, Serial Distribution, Soil Structure, Specialized Onsite Wastewater System Design (greater than 1500 gpd), Stickiness, Subsurface Wastewater Infiltration Area (Drain Field), Ultimate Tensile Strength, Upgrade/Expansion, Wastewater Infiltration Trench, Wastewater Treatment Facility, and Zone of Saturation.

This section transfers and revises definitions from the existing R. 61-56, Section II, Definitions as follows: Conventional Soil Final Treatment and Disposal, Grease Trap, Individual Sewage Treatment and Disposal System, Permit, and Sewage.

This section deletes definitions from the existing Regulation 61-56, Section II, Definitions as follows: Lint Trap and Oil /Water Separator.

Section 102. This section reflects current nomenclature regarding general aspects of 61-56, such as, when an approved means for treatment and disposal of domestic wastewater is needed, insure that permits are not in

conflict with 208(b) of the Clean Water Act, and when large (greater than 1500 gpd) and community onsite wastewater systems are required to have a Land Application Permit under Regulation 61-9.505.

Section 102.9. This section added to address wastewater disposal and sanitary dump stations for campgrounds utilizing onsite wastewater systems.

Section 103. This section reflects current nomenclature for processing applications, issuing permit, and installation approvals. It adds that the department will issue construction and operation permits and that permits will be valid for a period of five (5) years.

Section 200. This section reflects current nomenclature for minimum site conditions and adds the following: increase the setback from receptors to seventy-five (75) feet; require fifty (50) percent repair area for an onsite wastewater system and one hundred (100) percent repair area on community systems and mass installations; requirements for perpetual maintenance of the sewer lines and mass wastewater infiltration area.

Section 201. This section reflects current nomenclature for properly sizing septic tanks and adds requirements for grease traps relative to the primary treatment of wastewater.

Section 202. This section reflects current nomenclature for proper sizing of aggregate used onsite wastewater systems and the proper installation of drop boxes for the final treatment and disposal of wastewater.

Section 203. This section reflects current nomenclature for additional construction requirements that may be needed for proper system installation, depending upon terrain.

Section 204. This section has been added to provide specific details for evaluating alternative infiltration trench products based on the soil infiltrative surface.

Section 300. This section reflects current nomenclature relative to restrictions for issuing septic tank permits when a wastewater treatment facility is accessible for connection.

Section 301. This section reflects current nomenclature for prohibiting surface discharge from onsite wastewater systems without an appropriate permit.

Section 302. This section reflects clarifies enforcement actions, including permit revocations, since a permit addresses both construction and operation. It also adds language specifying the appeals process for any department enforcement action.

Section 303. This section reflects current nomenclature.

Section 304. This section has been added to require owners to apply for and receive approvals for any upgrades/expansions to existing onsite wastewater systems.

Section 305. This section protects the remainder of the regulation should any part of the regulation be deemed unlawful or invalid.

## Appendices

Section 401. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses the requirements of large (greater than 1500 gpd) and community onsite wastewater systems.

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Section 402. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least twenty-four (24) inches below the ground surface and when soil texture in the upper eighteen (18) inches of naturally occurring soil is no more limiting than Class IV.

Section 403. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least twenty-one (21) inches below the ground surface and when soil texture in the upper eighteen (18) inches of naturally occurring soil is no more limiting than Class IV.

Section 404. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least twenty (20) inches below the ground surface and when soil texture in the upper eighteen (18) inches of naturally occurring soil is no more limiting than Class III.

Section 405. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least twelve (12) inches below the ground surface and when soil texture in the upper eighteen (18) inches of naturally occurring soil is no more limiting than Class III.

Section 406. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites where rock formation is greater than four (4) feet below the ground surface and there is no evidence of a zone of saturation in the unconsolidated saprolite layer.

Section 407. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least fifteen (15) inches below the ground surface and where soil texture in the upper eighteen (18) inches of naturally occurring soil is no more limiting than Class III.

Section 408. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs with alternative trench width and depth, and that must conform with applicable requirements for soil conditions, depth to rock and other restrictive horizons, and depth to the zone of saturation for conventional and alternative onsite wastewater systems.

Section 409. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with rippable rock formations with no evidence of a zone of saturation in the unconsolidated saprolite layer.

Section 410. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least twelve (12) inches below the ground surface in Class IV soil.

Section 411. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs that allow the use of double stone depth to decrease the linear footage of the system if the site meets the offsets to the zone of saturation and restrictive horizons.

Section 412. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at least six (6) inches below the ground surface. The texture in the

upper twelve (12) inches of the natural soil must be Class I or Class II, and the permeable substratum must be no more limiting than Class II.

Section 413. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses onsite wastewater designs for sites with a zone of saturation at the ground surface and requires filling the site with sand in order to meet the required offset to the zone of saturation. The texture in the upper eighteen (18) inches of the natural soil must be a Class I or Class II.

Section 414. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This system is similar to the system described in Section 413, except that this system has a wall to contain the fill material.

Section 415. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard allows the property owner to have a Professional Soil Classifier and Professional Engineer reevaluate denied sites for the use of a specialized onsite wastewater system. These specialized systems are designed by the engineers and submitted to the Department for permitting.

Section 416. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses design criteria for curtain drains, which are subsurface interceptor drains that collect and redirect seasonal groundwater to an appropriate discharge point away from the onsite wastewater system.

Section 500. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses the absorption rate of the soil at a site being evaluated; the soil absorption rate determines the size of the surface wastewater infiltration area for onsite wastewater system.

Section 501. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard is used determine the peak wastewater flow for an establishment if actual comparable flow data is not available from a similar establishment.

Section 600. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard is used to determine the appropriate size of an effluent pump, if needed, for an onsite wastewater system.

Section 700. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard addresses minimum designs for concrete tanks utilized for septic tanks, grease traps, and pump chambers in onsite wastewater systems

Section 800. This is the current Department standard being used under the authority of the existing R. 61-56 and is being incorporated into the text of the new regulation. This standard is similar to Section 700 and addresses, specifically, minimum requirements for fiberglass reinforced plastic tanks.

**Instructions:** Replace R.61-56 in its entirety by this amendment:

**Text:**

Regulation 61-56.        ONSITE WASTEWATER SYSTEMS

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800	Appendix U - Fiberglass Reinforced Plastic Tanks Standard

### REFERENCES:

A. The following statutes are referenced in this regulation:

1. S.C. Code of Laws, 44-1-20 , et seq., South Carolina Department of Health and Environmental Control (1976 Code as amended)
2. S.C. Code of Laws, 1-23-10 et seq., South Carolina Administrative Procedures Act (1976 Code as amended)
3. S.C. Code of Laws, 48-1-10 et seq., South Carolina Pollution Control Act (1976 Code as amended)

4. S.C. Code of Laws, 48-39-10 et seq., South Carolina Coastal Tidelands and Wetlands (1976 Code as amended)
5. Section 208, Federal Clean Water Act, 33 U.S.C. § 1288

B. The following Departmental standards and/or publications are referenced in this regulation:

1. Regulation 61-25, Retail Food Establishments
2. Regulation 30-1, Coastal Division Regulations
3. Regulation 61-9, Water Pollution Control Permits
4. Regulation 61-58, State Primary Drinking Water Regulations
5. Regulation 61-67, Standards for Wastewater Facility Construction
6. Regulation 61-68, Water Classification and Standards
7. Regulation 61-69, Classified Waters

C. The following manufacturing and procedural standards are referenced in this regulation:

1. American Society of Agronomy (ASA)
2. American Society for Testing and Materials (ASTM) C
3. American Society for Testing and Materials (ASTM) D
4. Crop Science Society of America (CSSA)
5. National Building Specification (NBS) Voluntary Product Standard PS 15-69
7. National Electrical Manufacturers Association (NEMA)
8. Soil Science Society of America (SSSA)

## 100 PURPOSES and SCOPE

A major factor influencing the health of individuals where public wastewater treatment facilities are not available is the proper onsite treatment and disposal of domestic wastewater. Diseases such as dysentery, cholera, infectious hepatitis, typhoid and paratyphoid are transmitted through the fecal contamination of food, water, and the land surface largely due to the improper treatment and disposal of domestic wastewater. For this reason, every effort should be made to prevent such hazards and to treat and dispose of all human waste through the practical application of the best and most cost affective technology available.

Safe treatment and disposal of domestic wastewater is necessary to protect the health of families and communities, and to prevent the occurrence of public health nuisances. Domestic wastewater can be rendered ecologically safe and public health can be protected if such wastes are disposed of so that:

- A. They will not contaminate any drinking water supply.
- B. They will not give rise to a public health hazard by being accessible to insects, rodents, or other possible carriers, which may come into contact with food or drinking water.
- C. They will not give rise to a public health hazard by being accessible to children or adults.
- D. They will not violate federal and state laws or regulations governing water pollution or sewage disposal.
- E. They will not pollute or contaminate any waters of the state.
- F. They will not give rise to a public health nuisance.

Where the installation of an onsite wastewater system is necessary, the basic principles of design, construction, installation, operation and maintenance shall be followed.

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### 101 DEFINITIONS

**ACCESSIBLE** - For the purpose of this regulation, a wastewater treatment facility connection is accessible when it adjoins the property in question, and the sewer authority has granted permission to connect to the system. Where annexation or easements to cross adjacent property are required to connect to a wastewater treatment facility, the wastewater treatment facility shall not be considered accessible.

**ALTERNATIVE SYSTEM** – A system incorporating design modifications of the proposed subsurface wastewater infiltration trench area or geometry for the purpose of achieving compliance with required setbacks and offset to the zone of saturation and/or restrictive horizons. No such system shall be utilized unless the Department has established a specific standard.

**ALTERNATIVE INFILTRATION TRENCH PRODUCTS**- Products specifically designed to replace or eliminate the aggregate typically utilized in subsurface infiltration trenches. Such products must be approved for use by the Department and must adhere to required equivalency values established herein.

**APPLICANT** – A property owner, general contractor or agent representing the property owner, or developer who seeks a permit to construct and operate an onsite wastewater system.

**CAMPGROUND** - An organized camp in which campsites are provided for use by the general public or certain groups.

**CANAL** – An artificial waterway used for navigation, drainage, or irrigation.

**COLOR CHARTS (Munsell System or equivalent)** – Charts bearing various color chips established by a recognized color system which use three elements—hue, value, and chroma—to make up a specific color notation. The notation is recorded in the form of hue, value, and chroma (eg., 10YR 5/6). The three attributes of color are arranged in the system in orderly scales of equal visual steps, which are used to measure and describe color accurately under standard conditions of illumination by comparing soil samples to color chips on various charts.

**CONVENTIONAL SYSTEM** – An onsite wastewater system that utilizes a network of conventional wastewater infiltration trenches installed in the naturally occurring soil for the treatment and disposal of domestic wastewater.

**CRITICAL AREA LINE** – The line, as established by the Department, that delineates the landward boundary of (1) coastal waters, (2) tidelands, (3) beach/dune systems, and (4) beaches as they are defined in the S.C. Code of Laws Section 48-39-10 et seq. and R. 30-1 et seq.

**CURTAIN DRAIN** – A subsurface interceptor drain that is installed to collect and redirect seasonal groundwater as it flows through the soil profile to an appropriate discharge point.

**DEPARTMENT** – The South Carolina Department of Health and Environmental Control.

**DITCH** – A long narrow excavation, intended for the purposes of drainage and/or irrigation.

**DOMESTIC WASTEWATER OR SEWAGE**- The untreated liquid and solid human body waste and the liquids generated by water-using fixtures and appliances, including those associated with food service operations. For the purposes of this regulation, domestic wastewater shall not include industrial process wastewater.

**EFFLUENT** – The liquid discharged from a septic tank, effluent pump station, or other sewage treatment device.



**EMBANKMENT** – A bank of soil with at least two (2) feet of vertical height from top to bottom.

**ENVIRONMENTALLY SENSITIVE WATERS** – Outstanding resource waters (ORW), Shellfish Harvesting Waters (SFH), and Trout-Natural Waters (TN) as defined in R.61-68 and classified in R.61-69, and including lakes greater than forty (40) acres in size and the Atlantic Ocean, regardless of their classifications in R.61-69.

**EXISTING SYSTEM** - An onsite wastewater system, which has received final construction approval or has been serving a legally occupied residence or structure.

**EXPANSIVE SOILS** – Soils containing significant amounts of expansible-layer clay minerals (smectites) as evidenced in the field by classifications of “Very Sticky” and “Very Plastic” and Structure Grades of “Weak” or “Structureless” when evaluated in accordance with the Field Book. Such soils are considered to be unsuitable for onsite wastewater systems.

**FAILING ONSITE WASTEWATER SYSTEM** – An onsite wastewater system that is discharging effluent in an improper manner or has ceased to function properly.

**FIBERGLASS REINFORCED PLASTIC** - A fibrous glass and plastic mixture that exhibits a high strength to weight ratio and is highly resistant to corrosion.

**FIELD BOOK FOR DESCRIBING AND SAMPLING SOILS (Field Book)** – A field guide published by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) for making or reading soil descriptions and for sampling soils, as presently practiced in the USA.

**FINAL TREATMENT AND DISPOSAL** - Ultimate disposition of the effluent from a septic tank or other treatment device into the soil.

**FLEXURAL MODULUS OF ELASTICITY** - A measure of stiffness of a material.

**FLEXURAL STRENGTH** - A measure of the ability of a material to withstand rupture when subjected to bend loading.

**GEL COATING** - A specially formulated polyester resin, which is pigmented and contains filler materials, the purpose of which is to provide a smooth, pore-free, watertight surface for fiberglass reinforced plastic parts.

**GREASE TRAP** - A device designed to separate and store the oil and grease component of wastewater discharged from facilities that prepare food.

**GLEYPING** – Bluish, greenish, or grayish colors in the soil profile that are indicative of markedly reduced conditions due to prolonged saturation. This condition can occur in both mottled and unmottled soils, and can be determined by using the Gley page of the soil color charts.

**INDUSTRIAL PROCESS WASTEWATER**- Non-domestic wastewater generated in a commercial or industrial operation that may or may not be combined with domestic wastewater.

**LONG-TERM ACCEPTANCE RATE (LTAR)** – The long-term rate, typically expressed in gallons per day per square foot of trench bottom area, at which a mature onsite wastewater system can continue to accept effluent without hydraulic failure occurring. This flow rate is a result of the interaction between unsaturated soil hydraulic conductivity and biomat resistance.

**MOTTLING** – Morphological features of the soil revealed as spots or blotches of different color or shades of color interspersed with the dominant matrix color.

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NSF STANDARD #14 - A National Sanitation Foundation Standard relating to thermoplastics, which have been tested and found satisfactory for potable water supply uses, and for drains, waste and vent applications.

ONSITE WASTEWATER SYSTEM – A system, generally consisting of a collection sewer, septic tank(s), and subsurface wastewater infiltration area, designed to treat and dispose of domestic wastewater through a combination of natural processes that ultimately result in effluent being transmitted through the soil, renovated, and ultimately discharged to groundwater.

Small Onsite Wastewater System – An individual system serving an individually deeded residence or business that generates less than fifteen hundred (1500) gallons per day of domestic wastewater. Management and maintenance of each system is the responsibility of the individual property owner.

Large Onsite Wastewater System (General) – An individual system that treats and disposes of domestic wastewater discharges in excess of fifteen hundred (1500) gallons per day.

a. Privately Owned Large System – A large onsite wastewater collection and treatment system that serves one piece of deeded property such as a school, adult residential care facility, rental apartment complex, shopping center, campground, mobile home park, office complex, etc. Management and maintenance of the system is the responsibility of the individual property owner.

b. Community (Cluster) System – A wastewater collection and treatment system that provides shared collection, treatment, and disposal of domestic wastewater from multiple parcels or multiple units of individually deeded property. Such a system might serve a small subdivision or a condominium complex. It is imperative with such systems that some form of common ownership and management be established and approved by the Department.

OPERATION AND MAINTENANCE — Activities including tests, measurements, adjustments, replacements, and repairs that are intended to maintain all functional units of the onsite wastewater system in a manner that will allow the system to function as designed.

PARENT MATERIAL – The unconsolidated and chemically weathered mineral or organic matter from which the column of soils is developed by pedogenic processes.

PERMIT - A written document issued by the Department authorizing the construction and operation of an onsite wastewater system under this regulation. The construction and operation permit survives the life of the onsite wastewater system that it authorizes.

PLASTICITY – The degree to which “puddled” or reworked soil can be permanently deformed without rupturing. The evaluation is made in accordance with the Field Book by forming a roll (wire) of soil at a water content where the maximum plasticity is expressed.

PRIMARY TREATMENT - The initial process to separate solids from the liquid, digest organic matter and store digested solids through a period of detention and biological conditioning of liquid waste.

PROFESSIONAL SOIL CLASSIFIER – A person with special knowledge of the physical, chemical and biological sciences applicable to soils as natural bodies and of the methods and principles of soil classification as acquired by soils education and soil classification experience in the formation, morphology, description and mapping of soils; is qualified to practice soil classifying; and who has been duly registered by the South Carolina State Board of Registration for professional soil classifiers.

PUBLIC ENTITY – Any organizations such as a city, town county, municipality, or special purpose sewer district.

**PUBLIC WATER SYSTEM** - Any publicly or privately owned waterworks system that provides drinking water for human consumption, as defined in R. 61-58, State Primary Drinking Water Regulations.

**PUMP CHAMBER** - A water-tight, covered receptacle designed and constructed to receive and store the discharge from a septic tank until such time that the effluent is pumped to a final treatment and disposal site.

**RECEPTOR** – Any water well or surface water of the state, including estuaries.

**REDOX DEPLETIONS** – Mottles of chroma two (2) or less with values of four (4) or more using soil color charts.

**REDOXIMORPHIC FEATURES** – Morphological features that are formed by the processes of reduction, translocation, and oxidation of iron and manganese oxides in seasonally saturated soils. These include redox concentrations, redox depletions, and reduced matrices.

**REMOTE SUBSURFACE WASTEWATER INFILTRATION AREA** – A subsurface wastewater infiltration area that is not situated within the legal boundaries of the primary lot or tract that it serves.

**REPAIR** -- Any work performed on an existing onsite wastewater system for the purposes of correcting a surface failure or other unauthorized discharge, enhancing system performance, relocating the entire system or system components, provided there are no changes in use that would impact the existing system.

**REPAIR OR REPLACEMENT AREA** - An area reserved for the installation of additional wastewater infiltration trenches.

**RESTRICTIVE HORIZON** – A soil horizon that is capable of severely retarding the movement of groundwater or effluent, and may be brittle and cemented with iron, aluminum, silica, organic matter, or other compounds. Restrictive horizons may occur as fragipans, iron pans, organic pans, or shallow rock formations, and are recognized by their resistance in excavation and auger boring.

**RESIN** - Any number of commercially available polyester products used in the manufacture of fiberglass reinforced products which serve to contribute mechanical strength, determine chemical and thermal performance, and prevent abrasion of fibers, and which must be physically and/or chemically determined to be acceptable for the environment, and free from inert filler materials.

**SAPROLITE** – Soft, friable, thoroughly decomposed rock that has formed in place by chemical weathering, retaining the fabric and structure of the parent rock, and being devoid of expansive clay. Unconsolidated saprolite can be dug using a hand auger or knife. Consolidated saprolite cannot be penetrated with a hand auger or similar tool, and must be dug with a backhoe or other powered equipment.

**SEALANT** - A bonding agent specifically designed to bond joining sections of fiberglass reinforced plastic products to each other in such a manner so as to create a durable long lasting, watertight seal, which does not alter the structural integrity or strength of the two joined fiberglass products.

**SEPTIC TANK** - A water-tight, covered receptacle designed and constructed to receive the discharge of domestic wastewater from a building sewer, separate solids from the liquid, digest organic matter, store digested solids through a period of detention and biological conditioning of liquid waste, and allow the effluent to discharge for final treatment and disposal.

**SERIAL DISTRIBUTION** – A method for effluent distribution on sloping terrain that utilizes drop boxes or earthen dams to affect total sequential flow from upper to lower wastewater infiltration trenches.

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**SOIL STRUCTURE** – The aggregation of primary soil particles (i.e., sand, silt, and clay) into compound particles, or clusters of primary particles, which are separated from the adjoining aggregates by surfaces of weakness. In soils with platy structure, the aggregates are plate-like and overlap one another to severely impair permeability. A massive condition can occur in soils containing considerable amounts of clay when a portion of the colloidal material, including clay particles, tends to fill the pore spaces making the soil very dense.

**SOIL TEXTURE** – The relative proportions of the three soil separates (sand, silt, and clay) in a given sample of soil. The percentages of each separate are used to determine which class a particular sample falls into by plotting the intersection of these three values on the United States Department of Agriculture Natural Resource Conservation Service (USDA-NRCS) Textural Triangle.

**SPECIALIZED ONSITE WASTEWATER SYSTEM DESIGN (less than 1500 GPD)** – An onsite wastewater system that is certified to function satisfactorily and in accordance with all requirements of R.61-56 by virtue of it having been designed by a Registered Professional Engineer with technical input from a Professional Soil Classifier. Such systems have limited application, and can only be utilized when the required engineering design, certification, and technical soils documentation have been provided to and accepted by the Department.

**STANDARD** – A group of requirements developed by the Department that specifies the minimum site conditions and design criteria necessary for the approval of a specific type of onsite wastewater system (i.e., alternative system) that differs from a conventional system. A standard may also address minimum design criteria for certain components of onsite wastewater systems as well as methodologies for determining system sizing.

**STICKINESS** – The capacity of soil to adhere to other objects. Stickiness is estimated in accordance with the Field Book at the moisture content that displays the greatest adherence when pressed between the thumb and forefinger.

**SUBSURFACE WASTEWATER INFILTRATION AREA (DRAIN FIELD)** - A specific area where a network of wastewater infiltration trenches or other devices of sewage application are installed to provide the final treatment and disposal of effluent.

**ULTIMATE TENSILE STRENGTH** - A measure of the resistance of a material to longitudinal stress, measured by the minimum longitudinal stress required to rupture the material.

**UPGRADE/EXPANSION** - Any work performed on an existing onsite wastewater system for the purposes of increasing the capacity of the system above its original design and/or accommodating wastes of a different character than was originally approved.

**WASTEWATER INFILTRATION TRENCH** - A trench installed in the naturally occurring soil that is utilized for the treatment and disposal of domestic wastewater. A conventional trench is characterized by the following: (a) at least twenty-three (23) inches in depth; (b) thirty-six (36) inches in width; (c) filled with aggregate so that at least six (6) inches is beneath the distribution pipe, with at least five (5) inches on both sides of the pipe, and at least three (3) inches covering the pipe; and (d) at least nine (9) inches of backfill. Other trench configurations are specified in the attached Appendices of Standards for Onsite Wastewater Systems.

**WASTEWATER TREATMENT FACILITY** – An accessible publicly or privately owned system of structures, equipment and related appurtenances to treat, store, or manage wastewater.

**ZONE OF SATURATION** – Any zone in the soil profile that has soil water pressures that are zero or positive at some times during the year. For the purpose of this regulation, the beginning of such a zone shall be utilized in determining all required vertical separations from the deepest point of effluent application. This zone, therefore, shall be defined as the shallowest of those points at which either redox depletions appear or gleying is first observed; or, in the absence of other field identification methods, the maximum groundwater elevation as determined through wet season monitoring performed in accordance with criteria approved by the Department.

## 102 GENERAL

102.1 Each dwelling unit, building, business or other structure occupied for more than two (2) hours per day shall be provided with an approved method for the treatment and disposal of domestic wastewater.

102.2 It shall be the responsibility of the property owner to ensure that a permit to construct and operate any new, upgraded, or expanded onsite wastewater system is obtained from the Department prior to construction and operation of the system.

102.3 No person shall begin construction of a building to be served by an onsite wastewater system until a permit to construct and operate such a system is issued by the Department. Mobile or modular structures intended for occupancy shall not be moved onto the site until the permit to construct and operate an onsite wastewater system has been issued.

102.4 The permit holder shall be required to properly operate and maintain in good working order, and operate as efficiently as possible, all facilities and systems which are installed pursuant to the permit and to comply with all terms and conditions of the permit.

102.5 An onsite wastewater system serving more than one (1) piece of deeded property shall be considered as a community or cluster collection and treatment system and shall comply with the following:

(1) A permit activity will not occur that is inconsistent with a plan or plan amendment approved under section 208(b) of the Clean Water Act unless the Department finds such variance necessary to protect the public's health, safety and welfare.

(2) A public entity shall own the system and shall be responsible for the operation, maintenance and replacement of all components unless otherwise approved by the Department. The Department may consider a request from a private entity or person; however, such proposals must be evaluated on a case-by-case basis. The Department will evaluate the capability of long-term, reliable system operation in its evaluation of a permit request.

(3) If the project is owned by a private entity or person, the Department shall require financial assurances for the operation, maintenance, and replacement of the tank(s) and subsurface wastewater infiltration area system and relevant collection/pumping components.

(4) Sufficient area meeting the minimum requirements for large onsite wastewater systems shall be provided for at least one hundred (100) percent repair or replacement of the primary subsurface wastewater infiltration area.

(5) The collection sewer and pumping portions of a community onsite wastewater system shall receive a separate Construction Permit under R. 61-67.300.

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102.6 When the actual or estimated peak sewage flow will exceed fifteen hundred (1500) gallons per day (gpd), the Department may require that the design of the onsite wastewater system be prepared by a Registered Professional Engineer licensed in the State of South Carolina.

102.7 Large (greater than 1500gpd) and community onsite wastewater systems incorporating advanced treatment methods, including but not limited to aerobic pre-treatment, lagoons, surface or subsurface drip irrigation, low pressure pipe distribution and other maintenance intensive methods, shall be required to obtain a Land Application Permit under R. 61-9.505.

102.8 Facilities that generate industrial process or any other non-domestic wastewater shall not be granted a permit under this regulation unless the Department determines that the proposed discharge would not pose a significant environmental risk. In such a determination, the Department would assess the risk to public health and/or groundwater contamination regardless of whether or not the wastewater were discharged continuously or intermittently to the onsite wastewater system. Plumbing appurtenances that facilitate the transport of such wastewater, including floor drains, trench drains, utility sinks, equipment drains, or any other conduit shall not be installed in facilities served by onsite wastewater systems unless specifically approved by the Department as a result of the above-described determination.

### 102.9 Campgrounds

(1) Onsite wastewater systems serving campgrounds shall comply with all applicable requirements of this regulation. Such campgrounds shall be provided with adequate toilet and bathing facilities, except in those cases where all campsites are furnished with individual sewer service connections, and each site is exclusively designated for use by camping units equipped to access such connections.

(2) Individual sewer service connections shall be part of an approved sewage collection system and shall be equipped with removable, tight fitting covers.

(3) Where individual sewer service connections are not furnished at all campsites, an approved sanitary dump station(s) shall be provided at a convenient location(s) within the campground at the ratio of one dump station per one hundred (100) unsewered campsites or fractions thereof.

(a) A dump station shall consist of one or more trapped four inch sewer risers surrounded by a concrete apron having a diameter of at least two (2) feet and sloped to drain. Sewer risers must be equipped with removable, tight fitting covers.

(b) Each dump station shall be equipped with pressurized water to be used for washing the concrete apron. The water outlet shall be protected from back siphonage by a vacuum breaker installed at its highest point, or by other approved means. A sign shall be placed at this water outlet stating: THIS WATER IS FOR CLEANING PURPOSES ONLY.

## 103 APPLICATION, PERMIT, APPROVAL

### 103.1 Application

(1) The applicant shall furnish, on the application form provided by the Department, correct information necessary for determining the feasibility of an onsite wastewater system.

(2) A boundary plat, deed or other legal document specifying the lot size and its boundaries shall be furnished by the applicant. When a dwelling or facility is to be served by a remote subsurface wastewater infiltration area, the applicant must provide appropriate easement(s). An appropriate easement must allow

ingress and egress for construction, operation, maintenance, replacement and repair and must run with the land.

(3) Soil boring descriptions, backhoe pits, and soils classifications from specifically identified locations, including other tests or information, shall be required when deemed necessary by the Department.

(4) Before a site evaluation of the lot is performed by the Department, the applicant may be required to: clear and mark property boundary lines and corners; post an identification marker in the front center of the lot; place stakes at the corners of the proposed building; mark the proposed point of stub-out and septic tank; locate the proposed or existing well location; and identify the proposed location of any additional structures or facilities on the property that may influence the placement and configuration of the onsite wastewater system. Also, the applicant may be required to clear underbrush from the property in order to facilitate the evaluation.

### 103.2 Permit

(1) It shall be unlawful to construct, upgrade, expand, or operate an onsite wastewater system unless the Department has issued a permit for the specific construction and operation proposed. The system shall be constructed and operated in accordance with the permit, and the Department must authorize any changes prior to the construction and operation of the system. The applicant shall be required to make a written request or submit a new application if the permit modifications require another site evaluation. The Department may also require a permit for the repair of an onsite wastewater system when deemed necessary.

(2) The onsite wastewater system shall be constructed and operated according to the specifications and conditions of the permit, and in compliance with this regulation.

(3) In the case of repairs to existing onsite wastewater systems, the Department may authorize the best possible method of repair that, in the opinion of Department staff, may improve the operation of the system, regardless of site conditions.

(4) Permits issued after the effective date of this regulation shall remain valid for a period of five (5) years from the date of issuance, provided the physical character of the property has not changed and the conditions of the original permit can be met. Exceptions may be granted for those permits addressed by other statutes.

### 103.3 Approval

(1) Any repair, extension or alteration for which a permit has been issued and all newly constructed systems shall remain in an exposed condition until a final inspection and approval has been completed by the Department or a licensed contractor certified by the Department to conduct final inspections.

(2) An onsite wastewater system shall not be placed into operation prior to final inspection and approval by the Department or by an authority approved by the Department.

## 200 MINIMUM SITE CONDITIONS

200.1 Soil texture, depth of soil to restrictive horizons and depth to the zone of saturation shall meet minimum standards approved by the Department. These characteristics shall be determined using accepted methodologies in the field of soil science.

200.2 Soils exhibiting massive or platy structure, and soils which have been identified as having substantial amounts of expansible layer clay minerals or smectites, are unsuitable for onsite wastewater systems.

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200.3 Where the estimated peak sewage flow will not exceed fifteen hundred (1500) gpd, the minimum vertical separation between the deepest point of effluent application and the zone of saturation shall be at least six (6) inches.

200.4 Where the estimated peak sewage flow will exceed fifteen hundred (1500) gpd, the depth to the zone of saturation shall be at least thirty six (36) inches below the naturally occurring soil surface, and at least six (6) inches below the deepest point of effluent application.

200.5 Depth to rock and other restrictive horizons shall be greater than twelve (12) inches below the deepest point of effluent application.

200.6 The area of the lot or plot of ground where the onsite wastewater system is to be installed shall be of sufficient size so that no part of the system will be:

(1) Within five (5) linear feet of a building, or under a driveway or parking area;

(2) Within seventy-five (75) linear feet of a private well (less than 1500 gpd sewage flow), one hundred (100) linear feet of a receptor (greater than 1500 gpd sewage flow), and within the Department's established minimum distance from a public well;

(3) Within one hundred (100) linear feet of a public well;

(4) Within seventy-five (75) linear feet of the critical area line (tidal waters) as determined by the Department; or within seventy-five (75) linear feet of the ordinary high water (within the banks) elevation (non-tidal waters) of an impounded or natural body of water, including streams and canals;

(5) Within ten (10) feet of upslope and twenty-five (25) feet of down slope curtain drains;

(6) Within twenty-five (25) feet of a drainage ditch or stormwater treatment system;

(7) Within fifteen (15) feet of the top of the slope of embankments or cuts of two (2) feet or more vertical height when any part of the wastewater infiltration trench is to be placed higher in elevation than the invert of the cut or embankment;

(8) Within five (5) feet of a property line.

(9) Greater protective offsets shall be required when utilizing certain alternative system standards contained within this Regulation.

200.7 In addition to the minimum space required in Section 200.6, minimum repair area shall be set aside as follows:

(1) Any new site meeting the minimum design criteria for an onsite wastewater system shall have a usable repair or replacement area equivalent to at least fifty (50) percent of the size of the original system. Where community onsite wastewater systems are utilized, there must be at least one hundred (100) percent repair or replacement area. This area cannot be covered with structures or impervious materials.

(2) Usable repair or replacement area shall be demonstrated to include suitable soil conditions, and shall be free of buildings or other improvements, setbacks, easements, and other encroachments that would prevent system construction. The undisturbed area between the wastewater infiltration trenches shall not be credited towards this requirement.



200.8 Multiple, individually owned remote subsurface wastewater infiltration areas may be considered for mass installation in a defined area where the wastewater infiltration trenches will be adjacently located to each other, provided that the combined peak wastewater loading is less than fifteen hundred (1500) gpd. In such cases, each subsurface wastewater infiltration area plot shall be sized such that there is sufficient area for one hundred (100) percent subsurface wastewater infiltration area replacement.. Each plot shall be deeded, with all appropriate easements, as a lot in conjunction with the specific unit that it serves, and required protective offsets, as described in Section 200.6, shall apply to each individual remote subsurface wastewater infiltration area. A plan shall be prepared by a Registered Professional Engineer licensed in the State of South Carolina that illustrates the overall plan; specifies the route and identification of effluent sewers and/or forcemains; specifies the entity responsible for perpetual maintenance of the sewer lines and mass subsurface wastewater infiltration area; specifies the configuration and identification of the individual subsurface wastewater infiltration area parcels; and specifies the manner in which ingress and egress will be provided to the individual subsurface wastewater infiltration area parcels. When the combined peak wastewater loading of the adjacently loading subsurface wastewater infiltration area will exceed fifteen hundred (1500) gpd, the project shall be considered as a public (community) collection and treatment system, then the onsite wastewater system must comply with the requirements in Section 102.5.

## 201 MINIMUM REQUIREMENTS FOR PRIMARY TREATMENT

### 201.1 Septic Tanks

(1) All persons or firms manufacturing septic tanks for use in South Carolina shall submit detailed plans for each size tank to the Department, and shall receive written approval for such tanks prior to their installation in the state.

(2) The design and construction of each septic tank shall be in accordance with minimum standards contained within this Regulation.

(3) No septic tank shall be installed which has a net liquid capacity of less than one thousand (1000) gallons. Such tanks shall be sufficient to serve dwellings of four (4) bedrooms or less. Two hundred fifty (250) gallons additional capacity shall be required for each bedroom over four (4).

(4) When multiple dwellings, including condominiums, apartments, and mobile homes, share a common onsite wastewater system, each dwelling unit shall either have its own properly sized septic tank, or it must discharge to a larger tank(s) that provides the combined total of the minimum capacities required for each contributing unit. Exception may be granted when a public entity, or private entity with financial assurances, is approved by the Department to provide operation and maintenance of the system. In such cases, the formula in Section 201.1(5) may be considered.

(5) Septic tanks serving establishments other than individual dwellings shall be sized according to actual peak flow data, when available, or by estimates of peak sewage flow, as set forth in standards established by the Department. For those septic tanks receiving peak flows less than fifteen hundred (1500) gpd, the net liquid capacity shall be calculated by multiplying 1.5 times the peak flow expressed in gallons per day. For those septic tanks receiving peak flows between fifteen hundred (1500) and forty five hundred (4500) gpd, the net liquid capacity shall be calculated as follows:

$$\text{Volume (V)} = 1125 \text{ gal. plus } (0.75 \times \text{Peak Flow(gpd)}).$$

For those septic tanks receiving peak flows in excess of forty five hundred (4500) gpd, the net liquid capacity shall be at least equal to the peak flow:

$$\text{Volume (V)} = \text{Peak Flow (gpd)}$$

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(6) The minimum liquid capacity requirements shall be met by the use of a single septic tank or two or more tanks installed in series. Septic tanks joined in series shall be interconnected by an upper effluent pipe(s) with a minimum diameter of four (4) inches and a lower sludge pipe(s) with a minimum diameter of twelve (12) inches. The upper connection(s) shall be installed level from tank to tank, and the lower sludge pipe connection(s) shall be installed level and shall be placed twelve (12) inches above the bottoms of the tanks. The lower sludge pipe connection(s) can be eliminated if the first tank in series contains at least two-thirds of the total required liquid capacity. There shall be no more than two (2) inches of fall from the inlet invert of the first tank to the outlet invert of the last tank in series.

### 201.2 Grease Traps

(1) Any new food service facilities permitted under R. 61-25 and served by an onsite wastewater system that is permitted after the effective date of this regulation shall be required to have a properly sized grease trap. This requirement shall also apply to new facilities not requiring a food service permit under R. 61-25 where cooking operations are performed. Exception may be granted in cases where a retail food service establishment is permitted but does not perform any cooking or food preparation operations.

(2) Existing food service establishments permitted under R. 61-25 prior to the effective date of this regulation shall not be required to immediately comply with this section, provided the facility does not experience an onsite wastewater system malfunction. Those existing establishments that experience a future malfunction as a result of problems associated with the accumulation of grease shall be required to comply with all portions of this section. Also, food service facilities that were permitted prior to the effective date of this regulation, were closed, and then reopened at any time thereafter, provided the facility was not experiencing a malfunction prior to closure and the original peak design flow will not be exceeded, shall not be required to immediately comply with this section provided the facility does not experience an onsite wastewater system malfunction.

(3) Any food service facility requiring a grease trap shall provide two separate plumbing stub-outs, one serving the food preparation area and the other serving the restrooms. The stub-out from the restrooms shall discharge directly into the main building septic tank. The stub-out from the food preparation area shall discharge directly into the grease trap with the effluent then directed to the main building septic tank. In order to enhance grease separation while the liquids are hot, the grease trap shall be placed as close as possible to the source of wastewater. Garbage grinders shall not be allowed to discharge to such systems.

(4) All grease traps must be directly accessible from the surface, and must be equipped with an extended outlet sanitary tee terminating six (6) to twelve (12) inches above the tank bottom. The minimum access opening shall be eighteen (18) inches in diameter.

(5) All grease traps serving facilities from which the peak sewage flow exceeds fifteen hundred (1500) gpd shall either be dual chambered or individual tanks in series. If dual chambered, both the dividing wall and the second chamber must be equipped with a sanitary tee terminating six (6) to twelve (12) inches above the tank bottom.

(6) It shall be the responsibility of the owner/manager to ensure that the grease trap(s) is cleaned by a licensed septage pumper at frequent intervals to prevent the carryover of grease into other parts of the onsite wastewater system.

#### (7) Determination of Minimum Net Liquid Capacity

(a) No grease trap used as part of an onsite wastewater system shall have a net liquid capacity of less than one thousand (1000) gallons. Also, commercial interior-type grease interceptors shall not be utilized in lieu of a properly sized exterior grease trap.

(b) Minimum net liquid capacities of grease traps shall be determined as follows:

NLC = GPD x LF x RF, where  
 NLC = Net Liquid Capacity of Grease Trap (gallons)  
 GPD = Total Maximum Estimated Sewage Flow (gpd)  
 LF = Loading Factor (the approximate portion of the total maximum daily flow generated in food preparation areas)  
     0.3 - Schools and Other Institutions  
     0.4 - Restaurants  
     0.5 - Retail Food Stores  
 RF = Minimum Retention and Storage Factor of 2.5 for Onsite Wastewater Systems

### 201.3 Other Primary Treatment Methods

The Department, at its discretion, may consider other methods of primary treatment where conditions are warranted.

## 202 MINIMUM REQUIREMENTS FOR FINAL TREATMENT AND DISPOSAL SYSTEMS

### 202.1 General

(1) All pipe utilized in onsite wastewater systems shall meet applicable ASTM standards. All piping utilized in the connection of a septic tank to a subsurface wastewater infiltration area, including that which is utilized in the connection of adjacent wastewater infiltration trenches, whether they be level or serially fed, shall be non-perforated Schedule 40 PVC pipe. Such pipe, excluding force mains, shall be a minimum of three (3) inches in diameter. The connecting pipe shall not be surrounded by aggregate.

(2) At least seven (7) feet of undisturbed earth shall exist between wastewater infiltration trenches.

(3) The aggregate used in onsite wastewater systems shall be a material approved by the Department, and shall range in size from one-half (1/2) inch to two and one-half (2 1/2) inches. Fines shall be prohibited. Tire chips shall range in size from one-half (1/2) inch to four (4) inches in size, and wire strands shall not protrude more than one-half (1/2) inch from the sides.

(4) Drop boxes shall be utilized when deemed necessary by the Department. When required, they shall be surrounded and stabilized by at least two (2) feet of undisturbed or manually compacted earth, and the wastewater infiltration trenches shall be fed with non-perforated Schedule 40 PVC pipe. The invert of the drop box overflow pipe shall be at the same elevation as the top of the aggregate in the trenches fed by that box, and the top of the aggregate shall be level throughout the trench run. Other methods that affect serial distribution shall also overflow at the same elevation as the top of the aggregate.

(5) There shall be at least two (2) feet of earthen buffer between the septic tank and all portions of adjacent wastewater infiltration trenches. Where gravity flow is utilized, the invert elevation of the septic tank outlet shall be at the same elevation or higher than the top of the aggregate in the highest placed wastewater infiltration trench.

(6) To ensure proper operation and protection of onsite wastewater systems, the Department may require individual or combined installation of drainage swales, curtain or interceptor drains, protective barriers, or protective ground cover. Final approval of the permit may be withheld until such time as these improvements are completed.

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(7) The bottom of each wastewater infiltration trench, including the distribution pipe contained within, shall be as level as possible, with an elevation differential not to exceed two (2) inches throughout the trench run.

(8) The required number, length and configuration of wastewater infiltration trenches shall be determined by the Department, and shall be based upon the Standard for Determining Peak Sewage Flow Rates (Appendix R) from Commercial and Recreational Establishments in conjunction with the Long-Term Acceptance Rate Standard for Onsite Wastewater Systems (Appendix Q). All systems shall be sized based upon the most hydraulically limiting, naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(9) The aggregate over the distribution pipe shall be covered with a strong, untreated pervious material to prevent infiltration of backfill material.

### 203 CONSTRUCTION CRITERIA

203.1 On sloping terrain, wastewater infiltration trenches shall be installed perpendicular to the direction of slope and parallel to the contours of the land.

203.2 Where deemed necessary by the Department, all required site alterations (swales, fill, shaping, etc.) shall be done prior to permitting the installation of the onsite wastewater system.

203.3 The area in which the onsite wastewater system is to be located shall be protected from surface water and roof or downspout drainage by the installation of drainage swales and small amounts of fill to achieve positive surface drainage.

203.4 Gross amounts of dirt, mud and debris shall be removed from the septic tank before backfilling. All backfilling around the tank shall be tamped to facilitate stabilization.

203.5 If septic tank lids are of multi-part, slab-type construction, all joints shall be caulked or covered with heavy roofing paper or similar material.

203.6 All septic tanks of two-piece construction joined by tongue and groove shall be sealed with either bituminous mastic or other watertight caulking material placed in the groove in such quantity that the sealant is clearly visible around the entire tank after the two pieces are joined.

203.7 When effluent pumping is required, all components of the pumping system shall adhere to standards contained within this Regulation.

203.8 The Department may restrict, delay, or prohibit the installation or final approval of any onsite wastewater system when adverse soil or site conditions exist. These may include, but not be limited to, wet soil conditions in textural classes III and IV as described in the Long-Term Acceptance Rate Standard for Onsite Wastewater Systems approved by the Department.

### 204 EVALUATION OF ALTERNATIVE INFILTRATION TRENCH PRODUCTS

The Department shall be responsible for the evaluation and approval of alternative infiltration trench products prior to their use in the State, unless otherwise regulated by statute. This evaluation shall include a review of available research data; a review of parameters relating to structure, geometry, and volume; and the establishment of required equivalency values for comparing the product to a conventional wastewater infiltration trench.

204.1 Application

(1) All requests for approval of alternative infiltration trench products must be submitted in writing to the Department, and must include the following:

- (a) Complete description of the product and its intended use.
- (b) Complete listing of materials used in the construction of the product, including specifications.
- (c) Copies of all available literature pertaining to the product, and a listing of all appropriate reference materials.
- (d) Copies of any and all available research, testing and monitoring data, to include records of performance and/or prior experience in actual field conditions.

(2) The Department will review the application, and may seek other information, including additional evaluations.

204.2 Equivalency Value For Infiltrative Surface

(1) The total infiltrative surface area surrounding the sides and bottom of a conventional wastewater infiltration trench (i.e., 5.33 sq.ft./lin.ft.) shall serve as the basis for all geometric comparisons to alternative infiltration trench products.

(2) The effective infiltrative surface area of a conventional trench shall include the total of both rectangular sidewalls, beginning at the top of the aggregate and extending to the trench bottom, in addition to the width of the trench bottom. Similarly, the effective infiltrative surface area of a product shall include the total of both immediately adjacent, rectangular sidewalls, beginning at the top of louvers, slits, holes or similar orifices, in addition to the rectangular width of the trench immediately beneath the product.

(3) The equivalency value (E) for any given product is determined by comparing the total effective surface area of the product, as defined above, with that of a conventional wastewater infiltration trench as follows:

(a) Total Infiltrative Surface Area for One Foot of Conventional Trench:

$$\begin{aligned} \text{Trench Sidewalls} &= 2 \times (1.16\text{ft.H} \div 1.0 \text{ft.L}) = 2.33 \text{ sq.ft./lin.ft.} \\ \text{Trench Bottom} &= 1 \times (3\text{ft.W} \times 1\text{ft.L}) = 3.0 \text{ sq.ft./lin.ft.} \\ \text{Total Infiltrative Surface Area} &= 5.33 \text{ sq.ft./lin.ft.} \end{aligned}$$

(b) Equivalency Value (E) Shall Be Computed As Follows:

$$E = 5.33 \text{ sq.ft./ft} \div \text{Sum of Three Rectangular Interfaces Immediately Adjacent to Product (sq.ft./ft.)}$$

(c) The Required Total Length of the Product Shall Be Calculated As Follows:

$$\text{Length of Product (L)} = E \times \text{Length of Conventional 36 in. Wide Trenches Required By DHEC Regulations and Standards}$$

204.3 Other parameters to be evaluated for alternative infiltration trench products may include the following:

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(1) Structural Integrity - Products must be of sound construction and able to adequately withstand the normal pressures and stresses associated with installation and use.

(2) Inertness - No product can be approved unless it will remain relatively unaffected for extended periods of time while in contact with typical domestic wastewater.

(3) Storage Volume - The effluent storage capacity of a product must closely approximate or exceed that of a comparable conventional system.

(4) Maintenance of Permeable Interfaces - A product shall have a direct interface with the effective infiltrative surface (undisturbed natural soil) or, if backfill is required, backfill material shall not create a permeability barrier and shall not hinder the downward or horizontal flow of effluent into the undisturbed natural soil.

(5) The unique characteristics of a given product may warrant the evaluation of other parameters not specifically mentioned in this section of the regulation.

(6) The design, construction, or installation methods used with any product shall not conflict nor violate any other requirements established by the Department.

### 204.4 Approval For General Use

If warranted, the Department will issue a letter of approval for general use of the alternative infiltration trench product in accordance with equivalency values and other requirements determined herein.

## 300 WASTEWATER TREATMENT FACILITY ACCESSIBILITY

300.1 Permits for new onsite wastewater systems shall not be issued where a wastewater treatment facility is accessible for connection.

300.2 Repairs to or replacement of failing onsite wastewater systems shall not be allowed where a wastewater treatment facility is accessible for connection.

## 301 DISCHARGE OF WASTE

No septic tank effluent or domestic wastewater or sewage shall be discharged to the surface of the ground or into any stream or body of water in South Carolina without an appropriate permit from the Department.

## 302 ENFORCEMENT PROVISIONS

(1) This regulation is issued under the authority of Section 44-1-140(11) of the 1976 Code of Laws, as amended, and Section 48-1-10 et seq. of the 1976 Code of Laws, as amended. It shall be enforced in accordance with interpretations and public health reasons approved by the Department.

(2) The Department may temporarily suspend a permit for a violation of this regulation.

(3) The Department may revoke a permit for a violation of this regulation. The Department will revoke a permit when:

(a) the onsite wastewater system is malfunctioning and sewage is discharging to the ground or the groundwater, the holder of the permit has received notice that the system is malfunctioning, the Department has given notice that repairs must be made within a reasonable period of time, the holder of the permit has not made the repairs, and the system continues to discharge sewage to the ground or the groundwater; or

(b) the onsite wastewater system is malfunctioning and sewage is discharging to the ground or the groundwater, the holder of the permit has received notice that the system is malfunctioning, the Department has given notice that a wastewater treatment facility is accessible for connection.

(4) Following revocation under R.61-56.302.3.a, the holder of the revoked permit can obtain a repair permit and make the necessary repairs to the system. After the Department approves the repairs pursuant to Section 103.3 of this regulation, the holder of the permit will operate the onsite wastewater system under the terms of the new permit.

(5) In addition to the authority to suspend and revoke permits, the Department may seek enforcement and issue civil penalties in accordance with SC Code Ann. Sections 44-1-150 and 48-1-320, 330, and 340. The Department shall have the authority to assess and suspend civil penalties if the violations of this regulation are corrected in a period of time established by the Department.

(6) A Department decision involving the issuance, denial, renewal, modification, suspension, or revocation of a permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23. Any person to whom an order or enforcement letter is issued may appeal it pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

### 303 REPEAL AND DATE OF EFFECT

This regulation shall become effective as provided in Section 1-23-10 et seq. of the 1976 Code of Laws of South Carolina, as amended, and shall repeal Department of Health and Environmental Control R. 61-56 of the Code of Laws of South Carolina, 1976; except that, Sections 200.6(2) and 200.6(4) shall become effective on January 1, 2009, and existing Sections V.E(b) and (c) shall remain in effect until that date.

### 304 CHANGES IN USE THAT IMPACT EXISTING ONSITE WASTEWATER SYSTEMS

If the use of a dwelling or facility is changed such that additions or alterations are proposed which increase wastewater flow, change wastewater characteristics, or compromise the integrity or function of the system, the onsite wastewater system shall be brought into full compliance with this regulation. Alterations that change the wastewater characteristics or increase wastewater flow will require the owner to apply for and receive an approval for the upgrade/expansion prior to any alterations.

### 305 SEVERABILITY CLAUSE

Should any section, paragraph, sentence, clause or phrase of this regulation be declared unconstitutional or invalid for any reason, the remainder of this regulation shall not be affected thereby.

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### 400 APPENDICES OF STANDARDS FOR ONSITE WASTEWATER SYSTEMS

#### 401 APPENDIX A -SYSTEM STANDARD 150 – LARGE (greater than 1500 GPD) AND COMMUNITY ONSITE WASTEWATER SYSTEMS

##### 401.1 SITE/PERMITTING REQUIREMENTS

(1) The Department may require that designs for large and community onsite wastewater systems be prepared by a Registered Professional Engineer licensed in the State of South Carolina. Further, the Department may require whatever engineering and soils based submittals are deemed necessary to determine the feasibility and acceptability of any site for such a system.

(2) The depth to the zone of saturation (ZOS) shall be at least thirty-six (36) inches below the naturally occurring soil surface, and at least six (6) inches below the deepest point of effluent application.

(3) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(4) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting, naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(5) There shall be at least fifty (50) percent reserved subsurface wastewater infiltration area repair or replacement area available consisting of soils suitable for a large onsite wastewater system, except where public (community) systems are utilized, in which case there must be at least one hundred (100) percent repair or replacement area.

(6) Large (greater than 1500 gpd) and community onsite wastewater systems incorporating advanced treatment methods, including but not limited to aerobic pre-treatment, lagoons, surface or subsurface drip irrigation, low pressure pipe distribution, and other maintenance intensive methods, shall be required to obtain a Land Application Permit under R. 61-9.505.

(7) Efforts to circumvent the requirements of this standard by configuring remote, individually deeded, adjacently located subsurface wastewater infiltration areas in lieu of a community onsite wastewater system shall not be permitted. On a very limited basis, a few of these individual systems may be considered for mass installation where the wastewater infiltration trenches will be adjacent to each other in a defined area, provided that the combined peak wastewater loading is less than fifteen hundred (1500) gpd. In such cases:

(a) each subsurface wastewater infiltration area plot shall be sized such that there is sufficient area for one hundred (100) percent subsurface wastewater infiltration area replacement.

(b) Each plot shall be deeded with all appropriate easements as a lot in conjunction with the specific unit that it serves, and required protective offsets, as described in Section 200.6, shall apply to each individual remote subsurface wastewater infiltration area.

(c) A plan shall be prepared by a Registered Professional Engineer licensed in the State of South Carolina that illustrates the overall plan; specifies the route and identification of effluent sewers and forcemains; specifies the entity responsible for perpetual maintenance of the sewer lines and mass subsurface wastewater infiltration area; specifies the configuration and identification of the individual subsurface wastewater infiltration area parcels; and specifies the manner in which ingress and egress will be provided to the individual subsurface wastewater infiltration area parcels.



(d) When the combined peak wastewater loading of the adjacently located subsurface wastewater infiltration areas from the entire project will exceed fifteen hundred (1500) gpd, the project shall be considered as a public (community) collection and treatment system, and all requirements described in Section 102.5 and this standard shall apply.

**401.2 INSTALLATION REQUIREMENTS**

(1) Large (greater than 1500 gpd) and community onsite wastewater systems shall not be constructed in fill material, and shall not be placed any closer to receptors than one hundred (100) feet.

(2) Conventional wastewater infiltration trenches installed in the naturally occurring soil and having a width of thirty-six (36) inches shall be utilized.

(3) Wherever possible, designs that favor long wastewater infiltration trenches, convex landscape positions, and rectangular subsurface wastewater infiltration area configurations shall be required.

(4) All tree/brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

**401.3 COMMUNITY OR CLUSTER COLLECTION AND TREATMENT ONSITE WASTEWATER SYSTEMS**

(1) An onsite wastewater system serving more than one (1) piece of deeded property shall be considered as a public (community) collection and treatment system.

(2) A permit activity will not occur that is inconsistent with a plan or plan amendment approved under Section 208(b) of the Clean Water Act, unless the Department finds such variance necessary to protect the public's health, safety and welfare.

(3) A public entity shall own the system and shall be responsible for the operation, maintenance and replacement of all components unless otherwise approved by the Department. The Department may consider a request from a private entity or person; however such proposals must be evaluated on a case-by-case basis. The Department will evaluate the capability of long-term, reliable system operation in its evaluation of a permit request.

(4) If the project is owned by a private entity or person, the Department shall require financial assurances for the operation, maintenance, and replacement of the tank(s) and subsurface wastewater infiltration area system and relevant collection/pumping components.

(5) Sufficient area meeting the minimum requirements for large onsite wastewater systems shall be provided for at least one hundred (100) percent repair or replacement of the primary subsurface wastewater infiltration area.

(6) The collection sewer and pumping portions of a community onsite wastewater system shall receive a separate Construction Permit under R. 61-67.300.

(7) The permit holder shall be required to properly operate and maintain in good working order, and operate as efficiently as possible, all facilities and systems which are installed or used to achieve compliance with the terms and conditions of the permit.

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### 402 APPENDIX B -SYSTEM STANDARD 210/211 – SHALLOW PLACEMENT WITH 9-INCH AGGREGATE DEPTH

#### 402.1 SITE/PERMITTING REQUIREMENTS

(1) There must not be a zone of saturation (ZOS) within twenty-four (24) inches of the naturally occurring soil surface.

(2) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) The texture in the upper eighteen (18) inches of naturally occurring soil may either be Class I, II, III, or IV.

(4) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(5) Due to the decreased sidewall absorption area and the increased potential for ground water mounding near the surface, the Equivalency Factors for these systems shall be calculated by conventional wastewater infiltration trenches and increased by an additional factor of 0.09 times.

(6) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(7) This system must not be used on sloping sites that require serial distribution unless it can be demonstrated that the entire wastewater infiltration trench installation (i.e., side wall to side wall and end to end) can meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons. Level installations on slightly sloping sites can be considered if the above requirements can be met.

(8) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

#### 402.2 INSTALLATION REQUIREMENTS

(1) Serial distribution is restricted (see item 7. above).

(2) The wastewater infiltration trench aggregate shall be nine (9) inches in depth and shall be covered with at least nine (9) inches of backfill.

(3) The maximum wastewater infiltration trench width shall be thirty-six (36) inches; the minimum width shall be eighteen (18) inches.

(4) The maximum depth of the bottom of the wastewater infiltration trench shall be eighteen (18) inches below the naturally occurring soil surface unless it can be demonstrated that deeper placement can meet the required textural limitations and the offsets to the zone of saturation and restrictive horizons.

(5) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

(6) All tree and brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

**402.3 FINAL LANDSCAPING AND DRAINAGE**

(1) Installation of drainage swales, ditches, curtain drains, and rain gutters may be required to divert or intercept water away from the onsite wastewater system location to a positive outfall. The septic tank and subsurface wastewater infiltration area shall be backfilled and shaped to promote surface water runoff.

(2) A barrier to preclude parking and vehicular traffic over the system area may be required.

(3) Following final landscaping, seeding or sodding may be required to prevent erosion.

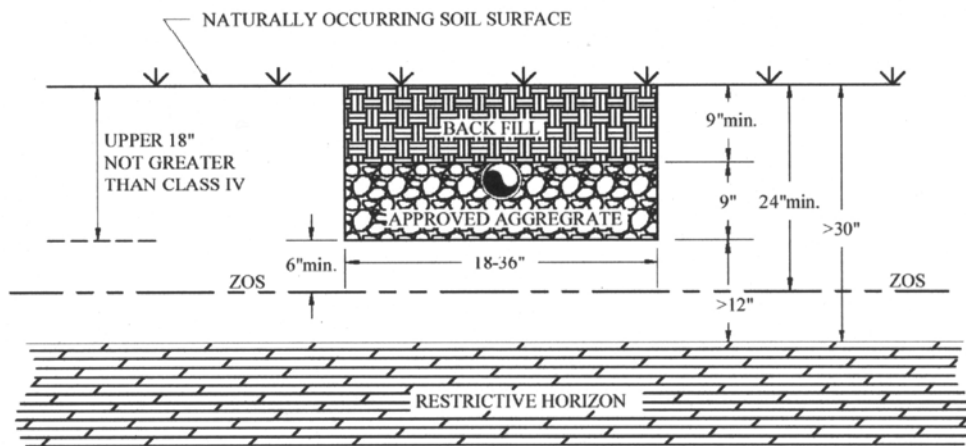
(4) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
SHALLOW PLACEMENT WITH NINE (9) INCH AGGREGATE DEPTH

PROGRAM 362 / CODE 210 / CODE 211 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



SCALE: 3/4"=1'

TIS REV. 031607

403 APPENDIX C -SYSTEM STANDARD 220/221 – SHALLOW PLACEMENT WITH 6-INCH AGGREGATE DEPTH

403.1 SITE/PERMITTING REQUIREMENTS

(1) There must not be a zone of saturation (ZOS) within twenty-one (21) inches of the naturally occurring soil surface.

(2) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) The texture in the upper eighteen (18) inches of naturally occurring soil may either be Class I, II, III, or IV.

(4) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(5) Due to the decreased sidewall absorption area and the increased potential for ground water mounding near the surface, the Equivalency Factors for these systems shall be calculated by conventional wastewater infiltration trenches and increased by an additional factor of 0.12 times.

(6) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(7) This system must not be used on sloping sites that require serial distribution unless it can be demonstrated that the entire wastewater infiltration trench installation (i.e., side wall to side wall and end to end) can meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons. Level installations on slightly sloping sites can be considered if the above limitations can be met.

(8) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

403.2 INSTALLATION REQUIREMENTS

(1) Serial distribution is restricted (see Section 403.1(7)).

(2) The wastewater infiltration trench aggregate shall be six (6) inches in depth and shall be covered with at least nine (9) inches of backfill.

(3) The maximum wastewater infiltration trench width shall be thirty-six (36) inches; the minimum width shall be eighteen (18) inches.

(4) The maximum depth of the bottom of the wastewater infiltration trench shall be fifteen (15) inches below the naturally occurring soil surface unless it can be demonstrated that deeper placement can meet the required textural limitations and the offsets to the zone of saturation and restrictive horizons.

(5) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

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(6) All tree and brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

### 403.3 FINAL LANDSCAPING AND DRAINAGE

(1) Installation of drainage swales, ditches, curtain drains, and rain gutters may be required to divert or intercept water away from the onsite wastewater system location to a positive outfall. The septic tank and subsurface wastewater infiltration area shall be backfilled and shaped to promote surface water runoff.

(2) A barrier to preclude parking and vehicular traffic over the system area may be required.

(3) Following final landscaping, seeding or sodding may be required to prevent erosion.

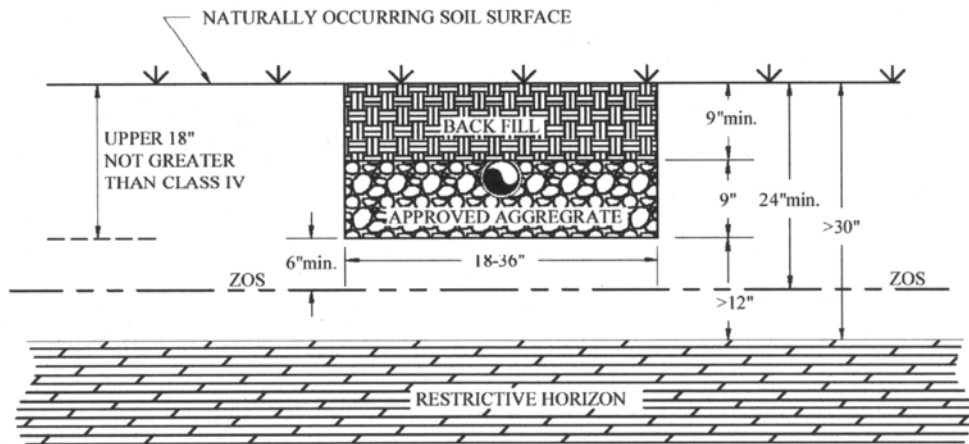
(4) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
SHALLOW PLACEMENT WITH NINE (9) INCH AGGREGATE DEPTH

PROGRAM 362 / CODE 210 / CODE 211 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



SCALE: 3/4"=1'

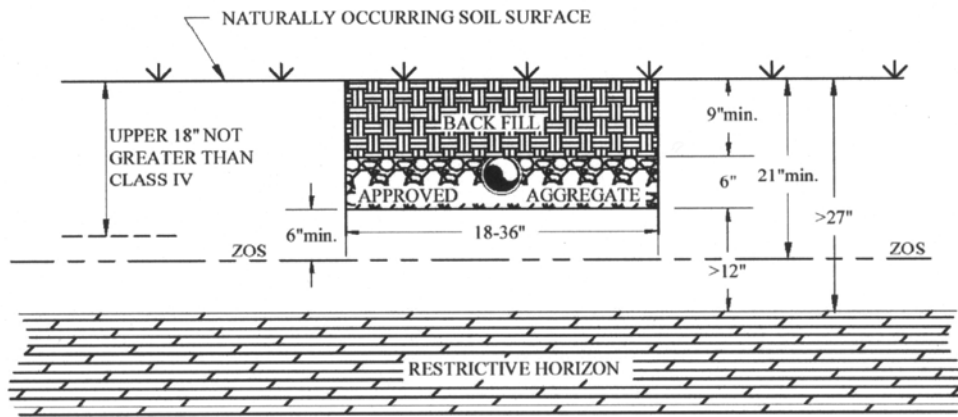
TIS REV. 03/16/07

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
SHALLOW PLACEMENT WITH SIX (6) INCH AGGREGATE DEPTH

PROGRAM 362 / CODE 220 / CODE 221 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



SCALE: 3/4"=1'

TLS REV 031607



404 APPENDIX D -SYSTEM STANDARD 230/231 – SHALLOW PLACEMENT SYSTEM WITH 14-INCH AGGREGATE DEPTH WITH FILL CAP

404.1 SITE/PERMITTING REQUIREMENTS

(1) There must not be a zone of saturation (ZOS) within twenty (20) inches of the naturally occurring soil surface.

(2) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) The texture in the upper eighteen (18) inches of naturally occurring soil must be no more limiting than Class III.

(4) This system must not be utilized on sites that require serial distribution. Level installations on slightly sloping sites can be considered if it can be demonstrated that the entire installation (i.e., side wall to side wall and end to end) will meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons.

(5) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(6) The total linear footage of wastewater infiltration trenches shall be the same as that required for conventional systems.

(7) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(8) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

404.2 INSTALLATION REQUIREMENTS

(1) The maximum wastewater infiltration trench width must not exceed thirty-six (36) inches; the minimum width shall be eighteen (18) inches.

(2) The maximum depth of the bottom of the wastewater infiltration trench shall be fourteen (14) inches below the naturally occurring soil surface unless it can be demonstrated that deeper placement can meet the required textural limitations and the offsets to the zone of saturation and restrictive horizons.

(3) The depth of the fill cap shall provide a minimum of twelve (12) inches backfill above the top of the wastewater infiltration trench aggregate. (see attached illustration)

(4) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

(5) The required fill cap must extend at least five (5) feet beyond the limits of the subsurface wastewater infiltration trenches, and must taper to the original soil surface at a slope not to exceed 10 percent. (see attached illustration). The required property line setback shall be measured from the point at which the fill cap taper intersects with the natural soil surface.

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(6) The required fill material must be soil texture Class I, Class II or Class III and be devoid of extraneous debris such as organic matter, building materials, etc.

(7) The wastewater infiltration trench aggregate shall be fourteen (14) inches in depth.

(8) All tree/brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

### 404.3 FINAL LANDSCAPING AND DRAINAGE

(1) The septic tank and fill cap area shall be backfilled and shaped to promote the runoff of surface water.

(2) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the fill cap area to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

(3) A barrier to preclude parking and vehicular traffic over the system area may be required.

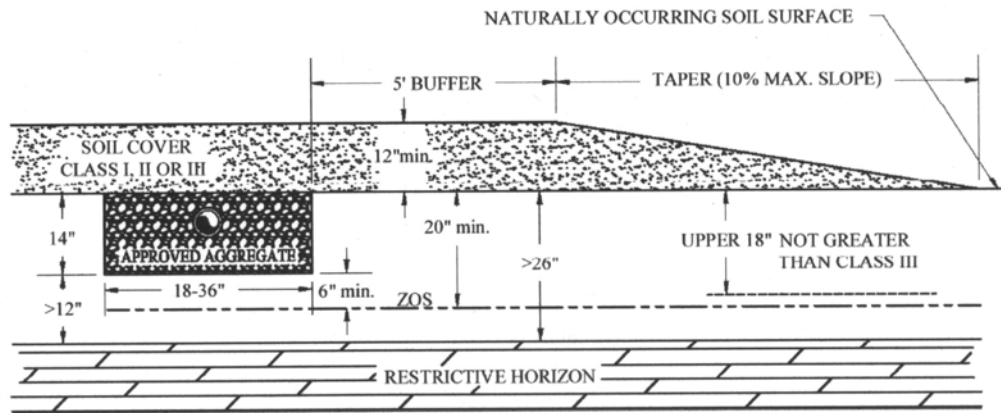
(4) Following final landscaping, seeding or sodding may be required to prevent erosion.

(5) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
SHALLOW PLACEMENT SYSTEM WITH FILL CAP  
PROGRAM 362 / CODE 230 / CODE 231 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



NOT TO SCALE

T18 REV 03/10/07

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### 405 APPENDIX E - SYSTEM STANDARD 240/241 – ULTRA-SHALLOW PLACEMENT WITH 6-INCH AGGREGATE DEPTH WITH FILL CAP

#### 405.1 SITE/PERMITTING REQUIREMENTS

(1) There must not be a zone of saturation (ZOS) within twelve (12) inches of the naturally occurring soil surface.

(2) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) The soil texture in the upper eighteen (18) inches of naturally occurring soil must be no more limiting than Class III.

(4) This system must not be utilized on sites that require serial distribution. Level installations on slightly sloping sites can be considered if it can be demonstrated that the entire installation (i.e., side wall to side wall and end to end) will meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons.

(5) No part of this system can be installed within one hundred twenty-five (125) feet of the critical area line or tidal waters as determined by the Department; or within one hundred twenty-five (125) feet of the ordinary high water elevation within the banks of non-tidal, environmentally sensitive waters.

(6) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(7) Due to the decreased sidewall area and the increased potential for ground water mounding near the surface, the Equivalency Factors for these systems shall be calculated by conventional wastewater infiltration trenches and increased by an additional factor of 0.12 times.

(8) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(9) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

#### 405.2 INSTALLATION REQUIREMENTS

(1) The maximum wastewater infiltration trench width must not exceed thirty-six (36) inches; the minimum width shall be 18 inches.

(2) The maximum depth of the bottom of the wastewater infiltration trench shall be six (6) inches below the naturally occurring soil surface unless it can be demonstrated that deeper placement can meet the required textural limitations and offsets to the zone of saturation and restrictive horizons.

(3) The depth of the fill cap shall provide a minimum of twelve (12) inches backfill above the top of the wastewater infiltration trench aggregate (see attached illustration).

(4) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

(5) The required fill cap must extend at least five (5) feet beyond the limits of the subsurface wastewater infiltration trenches, and must taper to the original soil surface at a slope not to exceed of 10 percent. (see attached illustration) The required property line setback shall be measured from the point at which the fill cap taper intersects with the natural soil surface.

(6) The required fill material must be soil texture Class I, Class II, or Class III, and be devoid of extraneous debris such as organic matter, building materials, etc.

(7) The wastewater infiltration trench aggregate shall be six (6) inches in depth.

(8) All tree/brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

#### 405.3 FINAL LANDSCAPING AND DRAINAGE

(1) The septic tank and fill cap area shall be backfilled and shaped to promote the runoff of surface water.

(2) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the fill cap area to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

(3) A barrier to preclude parking and vehicular traffic over the system area may be required.

(4) Following final landscaping, seeding or sodding may be required to prevent erosion.

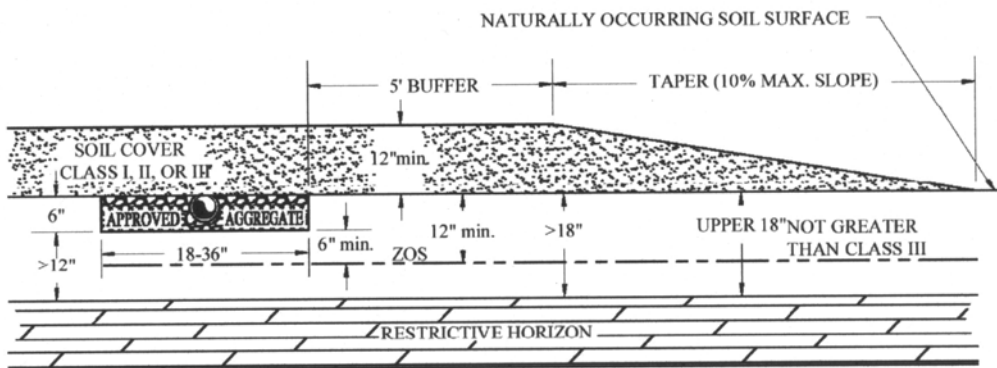
(5) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
ULTRA-SHALLOW PLACEMENT SYSTEM WITH FILL CAP

PROGRAM 362 / CODE 240 / CODE 241 IF PUMPED

TYPICAL DESIGN ILLUSTRATION



NOT TO SCALE

TLS REV 05/2007

## 406 APPENDIX F - SYSTEM STANDARD 250/251 – RESERVOIR INFILTRATION SYSTEM FOR SOILS WITH EXPANSIVE CLAY

## 406.1 SITE/PERMITTING REQUIREMENTS

(1) Rock formations must be greater than four (4) feet below the naturally occurring soil surface.

(2) For standard installations (see Typical Design Illustration A), the wastewater infiltration trenches must penetrate the saprolite at least six (6) inches. Also, there must be an offset greater than twelve (12) inches between the bottom of the trenches and any rock formations. (i.e. there must be greater than eighteen (18) inches of clean, unconsolidated saprolite below the expansive clay layer.)

(3) If the unconsolidated saprolite layer is greater than sixty (60) inches below the naturally occurring soil surface (see Typical Design Illustration B), item 2. (above) shall apply and clean medium sand shall be added to the trenches so that the top of the aggregate will be twelve (12) inches below finished grade.

(4) There must be no evidence of a zone of saturation (ZOS) in the unconsolidated saprolite layer.

(5) The Long-Term Acceptance Rate shall not exceed 0.25 gpd/sq. ft.

(6) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(7) Sites to be considered for this system shall be evaluated using backhoe pits to describe the soil profile.

(8) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

(a) Clean, unconsolidated saprolite shall be defined as: Soft, friable, thoroughly decomposed rock that has formed in place by chemical weathering, retaining the fabric and structure of the parent rock, and being devoid of expansive clay. Unconsolidated saprolite can be dug using a hand auger or knife. Consolidated saprolite cannot be penetrated with a hand auger or similar tool, and must be dug with a backhoe or other powered equipment.

(b) Expansive clay shall be defined as soils containing significant amounts of expansible-layer clay minerals or smectites as evidenced in the field by classifications of Very Sticky and Very Plastic and Structure Grades of Weak or Structureless when evaluated in accordance with the Field Book. Such soils are considered to be unsuitable for onsite wastewater systems.

## 406.2 INSTALLATION REQUIREMENTS

(1) The aggregate depth shall be twenty-four (24) inches.

(2) The depth of medium sand will vary between zero (0) and one hundred twenty (120) inches, depending upon the depth to the saprolite layer.

(3) The trench width shall be thirty-six (36) inches.

(4) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

## 112 FINAL REGULATIONS

(5) The backfill shall range from twelve (12) inches to thirty-six (36) inches for standard installations (see Typical Design Illustration A), and shall be twelve (12) inches where the depth to saprolite is greater than sixty (60) inches below the naturally occurring soil surface (see Typical Design Illustration B).

### 406.3 FINAL LANDSCAPING AND DRAINAGE

(1) On sites where there is evidence of a zone of saturation at the soil-expansive clay interface, a curtain drain must be placed upslope along a contour and must extend the entire length of the subsurface wastewater infiltration area. The curtain drain shall extend a minimum of six (6) inches into the expansive clay layer. The septic tank and subsurface wastewater infiltration area shall be backfilled and shaped to promote surface water runoff.

(2) Following final landscaping, seeding or sodding may be required to prevent erosion.

(3) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

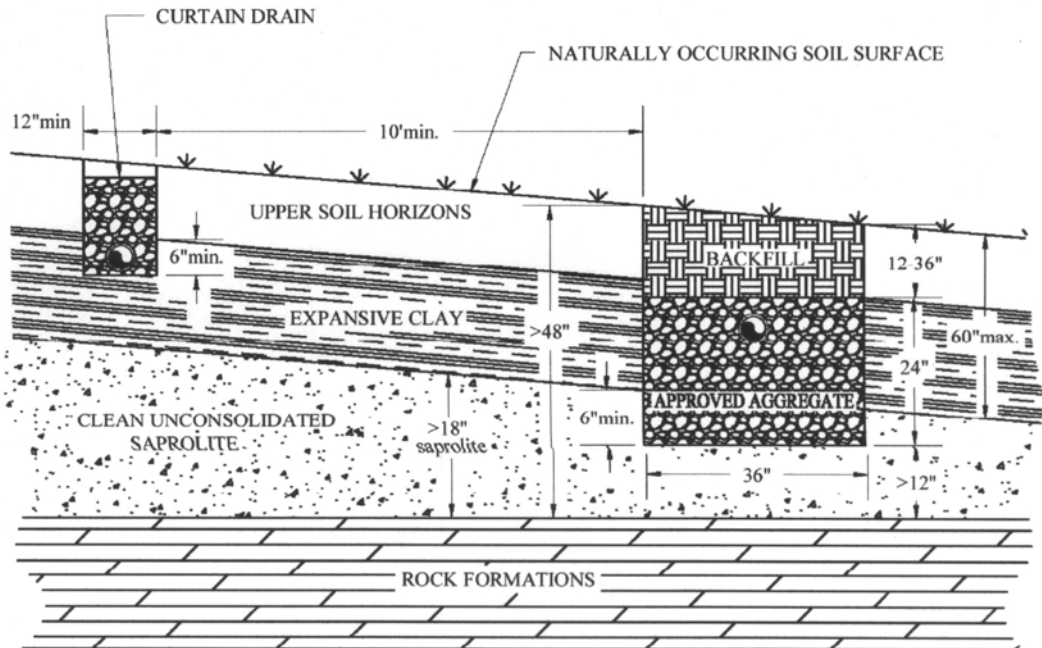


**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
RESERVOIR INFILTRATION SYSTEM FOR SOILS WITH EXPANSIVE CLAY

PROGRAM 362 / CODE 250 / CODE 251 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION (A)  
STANDARD INSTALLATION**



NOTE: FOR SOILS WITH THICK EXPANSIVE CLAY HORIZONS  
(i.e., DEPTH TO SAPROLITE > 60 INCHES BELOW NATURALLY OCCURRING SOIL SURFACE)  
SEE TYPICAL DESIGN ILLUSTRATION (B)

NOT TO SCALE

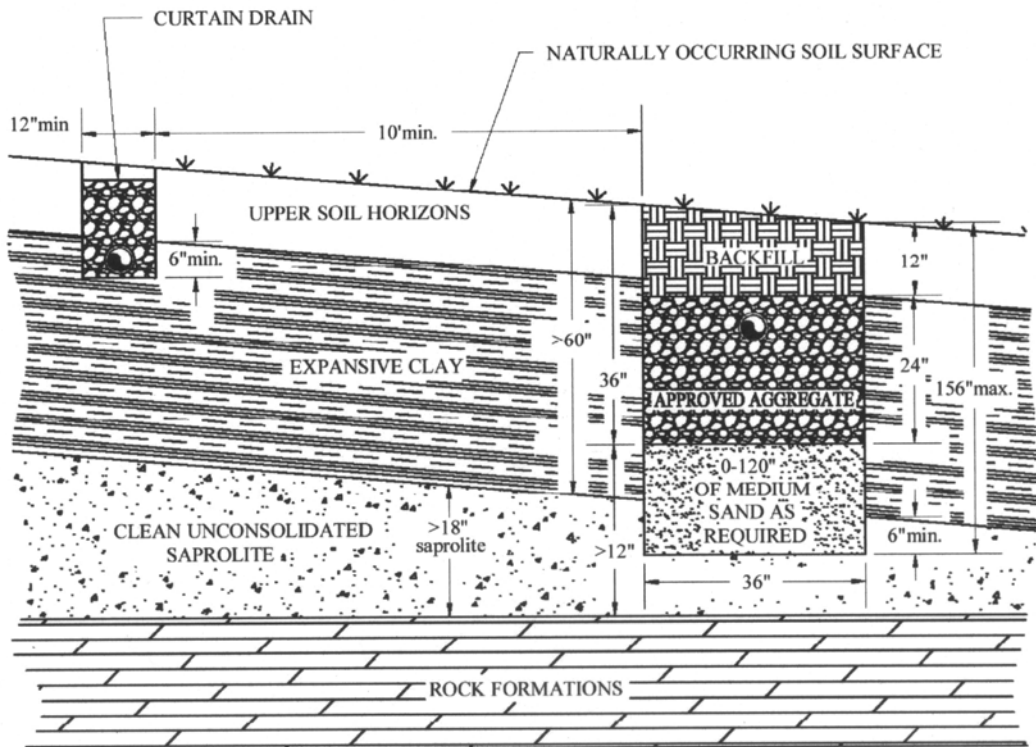
TLS REV. 03/16/07

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
RESERVOIR INFILTRATION SYSTEM FOR SOILS WITH EXPANSIVE CLAY

PROGRAM 362 / CODE 250 / CODE 251 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION (B)  
WHERE DEPTH TO SAPROLITE > 60in. BELOW SURFACE**



NOTE: FOR SOILS WITH THINNER EXPANSIVE CLAY HORIZONS  
(i.e., DEPTH TO SAPROLITE NOT >60in. BELOW NATURALLY OCCURRING SOIL SURFACE)  
SEE TYPICAL DESIGN ILLUSTRATION (A)

NOT TO SCALE

TLS REV. 03/16/07

## 407 APPENDIX G -SYSTEM STANDARD 260/261 – 9-INCH SHALLOW PLACEMENT SYSTEM WITH FILL CAP

## 407.1 SITE/PERMITTING REQUIREMENTS

(1) There must not be a zone of saturation (ZOS) within fifteen (15) inches of the naturally occurring soil surface.

(2) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) The texture in the upper eighteen (18) inches of naturally occurring soil must be no more limiting than Class III.

(4) This system must not be utilized on sites that require serial distribution. Level installations on slightly sloping sites can be considered if it can be demonstrated that the entire installation (i.e., side wall to side wall and end to end) will meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons.

(5) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(6) Due to the decreased sidewall absorption area and the increased potential for ground water mounding near the surface, the Equivalency Factors for these systems shall be calculated by conventional wastewater infiltration trenches and increased by an additional factor of 0.09 times.

(7) No part of this system can be installed within 125 feet of the critical area line or tidal waters as determined by the Department; or within 125 feet of the ordinary high water elevation within the banks of non-tidal, environmentally sensitive waters.

(8) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(9) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

## 407.2 INSTALLATION REQUIREMENTS

(1) The maximum wastewater infiltration trench width must not exceed thirty-six (36) inches; the minimum width shall be eighteen (18) inches.

(2) The maximum depth of the bottom of the wastewater infiltration trench shall be nine (9) inches below the naturally occurring soil surface unless it can be demonstrated that deeper placement can meet the required textural limitations and the offsets to the zone of saturation and restrictive horizons.

(3) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

(4) The depth of the fill cap shall provide a minimum of twelve (12) inches backfill above the top of the wastewater infiltration trench aggregate (see attached illustration).

## 116 FINAL REGULATIONS

(5) The required fill cap must extend at least five (5) feet beyond the limits of the wastewater infiltration trenches, and must taper to the original soil surface at a slope not to exceed 10 percent (see attached illustration). The required property line setback shall be measured from the point at which the fill cap taper intersects with the naturally occurring soil surface.

(6) The required fill material must be soil texture Class I, Class II, or Class III, and be devoid of extraneous debris such as organic matter, building materials, etc.

(7) The wastewater infiltration trench aggregate shall be nine (9) inches in depth.

(8) All trees/brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

### 407.3 FINAL LANDSCAPING AND DRAINAGE

(1) The septic tank and fill cap area shall be backfilled and shaped to promote the runoff of surface water.

(2) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the fill cap area to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

(3) A barrier to preclude parking and vehicular traffic over the system area may be required.

(4) Following final landscaping, seeding or sodding may be required to prevent erosion.

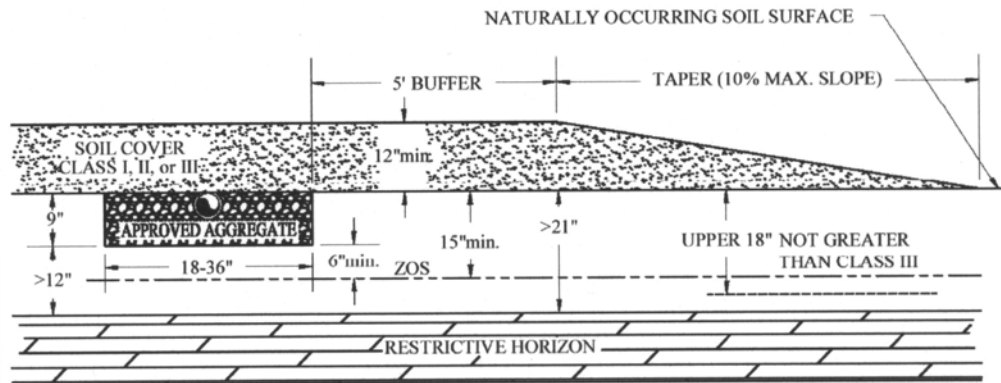
(5) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
NINE INCH SHALLOW PLACEMENT WITH FILL CAP

PROGRAM 362 / CODE 260 / CODE 261 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



NOT TO SCALE

TLS EHV 031637

**118 FINAL REGULATIONS**

**408 APPENDIX H -SYSTEM STANDARD 270/271 – ALTERNATIVE TRENCH WIDTH AND DEPTH SYSTEMS**

**408.1 SITE/PERMITTING REQUIREMENTS**

(1) Lot size or suitable area must be too small to accommodate a conventional or alternative onsite wastewater system.

(2) This Standard and associated systems shall not be used to calculate minimum lot sizes in new subdivisions approved after the effective date of this standard.

(3) Soil conditions, the depth to rock and other restrictive horizons, the depth to the zone of saturation (ZOS), and the elevation differential between the septic tank outlet and the highest wastewater infiltration trench(es) must meet applicable standards for conventional or alternative onsite wastewater systems.

(4) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(5) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day unless the trench width is three (3) feet and the aggregate depth is between fourteen (14) and twenty-eight (28) inches.

(6) The linear footage requirement for an alternative width and depth system shall be determined by first figuring the conventional (36 inch wide with 14 inch aggregate depth) linear footage requirements and then multiplying by the appropriate factor based on desired trench width and aggregate depth as computed in the following table:

<b>FACTORS (F) FOR MAINTAINING EQUIVALENT INFILTRATIVE SURFACE AREA</b>						
<b>TRENCH WIDTH (ft.)</b>	<b>AGGREGATE DEPTH (in.)</b>					
XXXXXXXX	<b>6" *</b>	<b>9" **</b>	<b>14"</b>	<b>20"</b>	<b>24"</b>	<b>28"</b>
<b>1.5'</b>	2.39	1.94	1.39	1.10	0.97	0.87
<b>2.0'</b>	1.99	1.66	1.23	1.00	0.89	0.80
<b>2.5'</b>	1.71	1.46	1.10	0.91	0.82	0.75
<b>3'</b>	1.50	1.30	1.00	0.84	0.76	0.70***
<b>4'</b>	1.20	1.06	0.84	0.73	0.67	0.62
<b>5'</b>	1.00	0.89	0.73	0.64	0.59	0.55
<b>6'</b>	0.85	0.78	0.64	0.57	0.53	0.50
<b>7'</b>	0.74	0.68	0.57	0.52	0.49	0.46
<b>8'</b>	0.66	0.61	0.52	0.47	0.45	0.42
<b>9'</b>	0.59	0.55	0.47	0.43	0.41	0.39
<b>10'</b>	0.54	0.51	0.43	0.40	0.38	0.36
<b>F = 5.34 ft<sup>2</sup>/ft</b> <b>2 (SwD / 12) + TW</b> <b>* Factors reflect a 12 percent increase</b> <b>** Factors reflect a 9 percent increase</b> <b>*** Use system code 360/380</b>			Where, 5.34 ft <sup>2</sup> /ft = total infiltrative surface area per linear foot of conventional type trench 36 in. wide, 14 in. deep SwD = Side Wall Depth (in.) TW = Trench Width (ft)			

## 408.2 INSTALLATION REQUIREMENTS

(1) Trench widths shall always be kept as narrow as possible and shall not exceed 10 feet.

(2) The aggregate depth shall be between six (6) inches and twenty-eight (28) inches when considering trench widths ranging from one and one-half (1½) to ten (10) feet (see chart). The aggregate depth may be increased to a maximum of forty-two (42) inches, provided the trench width does not exceed thirty-six (36) inches (Note: in these cases, the equivalency formula should be utilized to determine the appropriate factor (F) when considering aggregate depths between 28 and 42 inches). All trenches shall be covered with at least nine (9) inch of backfill.

(3) Methods of construction which preclude vehicular compaction of the trench bottom must always be utilized.

## 408.3 FINAL LANDSCAPING AND DRAINAGE

(1) Installation of drainage swales, ditches, diversion drains, or rain gutters may be required to divert or intercept water away from the onsite wastewater system location. The septic tank and subsurface wastewater infiltration area shall be backfilled and shaped to promote surface water runoff.

(2) A barrier to preclude parking and vehicular traffic over the area of the system may be required.

(3) Following final landscaping, seeding or sodding may be required to prevent erosion.

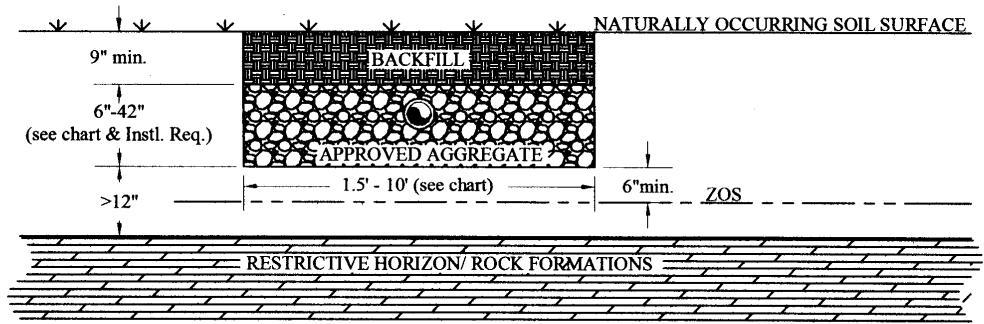
(4) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
ALTERNATIVE TRENCH WIDTH & DEPTH SYSTEMS

PROGRAM 362 / CODE 270 / CODE 271 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



NOT TO SCALE

**FACTORS (F) FOR MAINTAINING EQUIVALENT INFILTRATIVE SURFACE AREA**

TRENCH WIDTH (ft.)	AGGREGATE DEPTH (in.)					
	6" *	9" **	14"	20"	24"	28"
1.5'	2.39	1.94	1.39	1.10	0.97	0.87
2.0'	1.99	1.66	1.23	1.00	0.89	0.80
2.5'	1.71	1.46	1.10	0.91	0.82	0.75
3.0'	1.50	1.30	1.00	0.84	0.76	0.70***
4.0'	1.20	1.06	0.84	0.73	0.67	0.62
5.0'	1.00	0.89	0.73	0.64	0.59	0.55
6.0'	0.85	0.78	0.64	0.57	0.53	0.50
7.0'	0.74	0.68	0.57	0.52	0.49	0.46
8.0'	0.66	0.61	0.52	0.47	0.45	0.42
9.0'	0.59	0.55	0.47	0.43	0.41	0.39
10.0'	0.54	0.51	0.43	0.40	0.38	0.36

$$F = \frac{5.34 \text{ sqft. / ft}}{2(\text{SwD} / 12) + \text{TW}}$$

\* Factors (F) reflect 12% increase  
\*\* Factors (F) reflect 9% increase  
\*\*\* Use system code 360/380  
(See notes in text)

Where, 5.34 sqft/ft = total infiltrative surface area per linear foot of conventional type trench ( 36in. wide, 14in. deep)  
SwD = Side Wall Depth (in)  
TW = Trench Width (ft.)

TLS REV. 05/15/07



## 409 APPENDIX I - SYSTEM STANDARD 280/281 – RESERVOIR INFILTRATION SYSTEM FOR SOILS WITH EXPANSIVE CLAY SHALLOW ROCK FORMATIONS

## 409.1 SITE/PERMITTING REQUIREMENTS

(1) Rock formations must be rippable (see Section 409.1(9)(b)) to a depth greater than four (4) feet below the naturally occurring soil surface.

(2) The soil wastewater infiltration trenches must penetrate the saprolite at least six (6) inches, and there must be an offset greater than twelve (12) inches between the trench bottoms and any rock formations (i.e., there must be at least six (6) inches of clean, unconsolidated saprolite below the expansive clay layer, and medium sand may be added to the excavation to achieve an offset from rock that exceeds twelve (12) inches).

(3) There must be no evidence of a zone of saturation (ZOS) in the unconsolidated saprolite layer.

(4) The Long-Term Acceptance Rate shall not exceed 0.20-gpd/sqft.

(5) Effluent discharged to this system must receive a higher degree of treatment than that provided by a conventional septic tank. (i.e. two compartment septic tank or two septic tanks in series)

(6) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(7) No part of this system can be installed within one hundred twenty-five (125) feet of the ordinary high water elevation within the banks of environmentally sensitive waters.

(8) Sites to be considered for this system shall be evaluated using backhoe pits to describe the soil profile.

(9) This system cannot be considered for facilities with peak flow rates in excess of fifteen hundred (1500) gallons per day.

(a) Clean, unconsolidated saprolite shall be defined as: Soft, friable thoroughly decomposed rock that has formed in place by chemical weathering, retaining the fabric and structure of the parent rock, and being devoid expansive clay. Unconsolidated saprolite can be dug using a hand auger or knife. Consolidated saprolite cannot be penetrated with a hand auger or similar tool, and must be dug with a backhoe or other powered equipment.

(b) Rippable rock shall be defined as formations that can be readily dug with a standard rubber-tired backhoe.

(c) Expansive clay shall be defined as soils containing significant amounts of expansible-layer clay minerals (smectites) as evidenced in the field by classifications of Very Sticky and Very Plastic and Structure Grades of Weak or Structureless when evaluated in accordance with the Field Books. Such soils are considered to be unsuitable for onsite wastewater systems.

## 409.2 INSTALLATION REQUIREMENTS

(1) The aggregate depth shall be at least twenty-four (24) inches.

(2) The trench width shall be thirty-six (36) inches.

## 122 FINAL REGULATIONS

(3) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

### 409.3 FINAL LANDSCAPING AND DRAINAGE

(1) On sites where there is evidence of a zone of saturation at the soil-expansive clay interface, a curtain drain must be placed upslope along a contour and must extend the entire length of the subsurface wastewater infiltration area. The curtain drain shall extend a minimum of six (6) inches into the expansive clay layer. Also, the septic tank and subsurface wastewater infiltration area shall be backfilled and shaped to promote surface water runoff.

(2) Final approval shall be withheld until all landscaping, drainage, and other requirements have been satisfactorily completed.

(3) Following final landscaping, seeding or sodding may be required to prevent erosion.

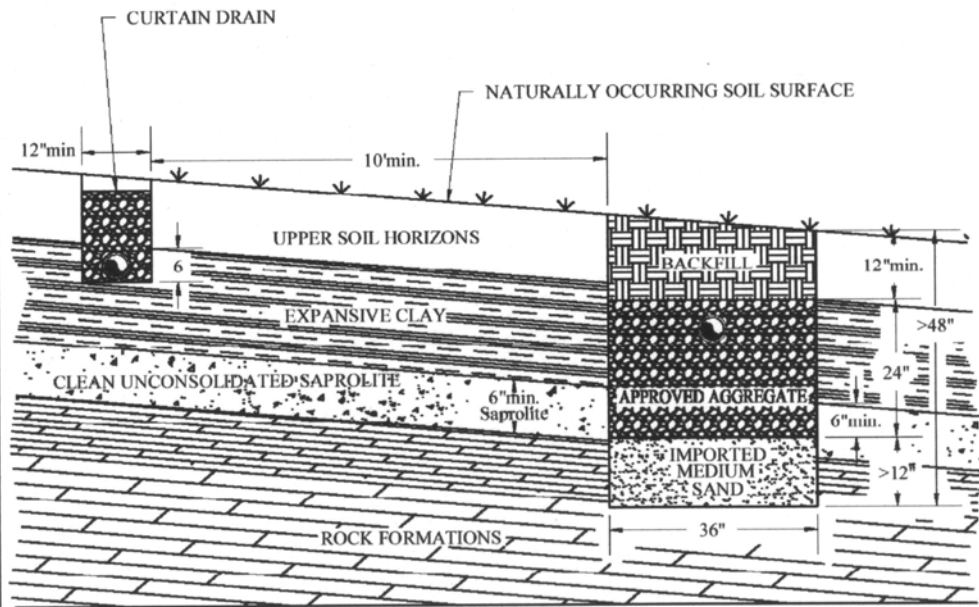
(4) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

**ALTERNATIVE SYSTEM  
RESERVOIR INFILTRATION SYSTEM FOR SOILS WITH EXPANSIVE CLAY  
OVER SHALLOW ROCK FORMATIONS**

PROGRAM 362 / CODE 280 / CODE 281 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



NOT TO SCALE

## 124 FINAL REGULATIONS

### 410 APPENDIX J - SYSTEM STANDARD 370/371 – SHALLOW PLACEMENT WITH FILL CAP FOR SITES WITH SHALLOW CLASS IV SOIL

#### 410.1 SITE/PERMITTING REQUIREMENTS

(1) There must not be a zone of saturation (ZOS) within twelve (12) inches of the naturally occurring soil surface.

(2) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) This system must not be utilized on sites that require serial distribution. Level installations on slightly sloping sites can be considered if it can be demonstrated that the entire installation (i.e., side wall to side wall and end to end) will meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons.

(4) No part of this system can be installed within 125 feet of the ordinary high water elevation within the banks of environmentally sensitive waters.

(5) This system may be considered for installation on contiguous lots in new subdivisions approved after the effective date of this standard provided a setback of at least seventy-five (75) feet is maintained between the system and all adjacent property lines. The seventy-five (75) foot setback shall be measured from the point at which the fill cap taper intersects with the naturally occurring soil surface.

(6) This system cannot be considered for facilities with peak sewage flow rates in excess of four hundred eighty (480) gallons per day. In addition, this system shall not be considered for facilities requiring grease traps.

(7) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(8) The Long-Term Acceptance Rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

#### 410.2 INSTALLATION REQUIREMENTS

(1) This system cannot utilize serial distribution.

(2) Effluent discharged to this system must receive a higher degree of treatment than that provided by a conventional septic tank (i.e. two compartment septic tank or two septic tanks in series).

(3) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

(4) The required fill cap must extend at least five (5) feet beyond the limits of the wastewater infiltration trenches, and it must taper to the original soil surface at a slope not to exceed 10 percent (see attached sketch). The required seventy-five (75) feet property line setback shall be measured from the point at which the fill cap taper intersects with the naturally occurring soil surface.

(5) The required fill material must be soil texture Class I, Class II or Class III and be void of extraneous debris such as organic matter, building materials, etc.

(6) The depth of the fill cap shall provide a minimum of twelve (12) inches backfill above the top of the wastewater infiltration trench aggregate.

(7) The wastewater infiltration trench width shall be thirty-six (36) inches.

(8) All tree and brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

(9) The following criteria shall be utilized in the selection and design of these systems:

<b>Depth to ZOS (Inches)</b>	<b>Depth to Class IV Soil (Inches)</b>	<b>Amount of Imported Fill Cap/Aggregate Depth (Inches)</b>	<b>Extension Factor</b>
12	18	12/6	1.5
13	17	12/6	1.5
14	16	12/6	1.5
15	15	12/9	1.3
16	14	12/9	1.3
17	13	12/9	1.3
18	12	12/9	1.3
19	11	12/9	1.3
20	10	12/9	1.3

Note: refer to the design sketch (typical) for detail.

**410.3 FINAL LANDSCAPING AND DRAINAGE**

(1) The septic tank and fill cap area shall be backfilled and shaped to promote the runoff of surface water.

(2) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the filled area to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

(3) A barrier to preclude parking and vehicular traffic over the system area may be required.

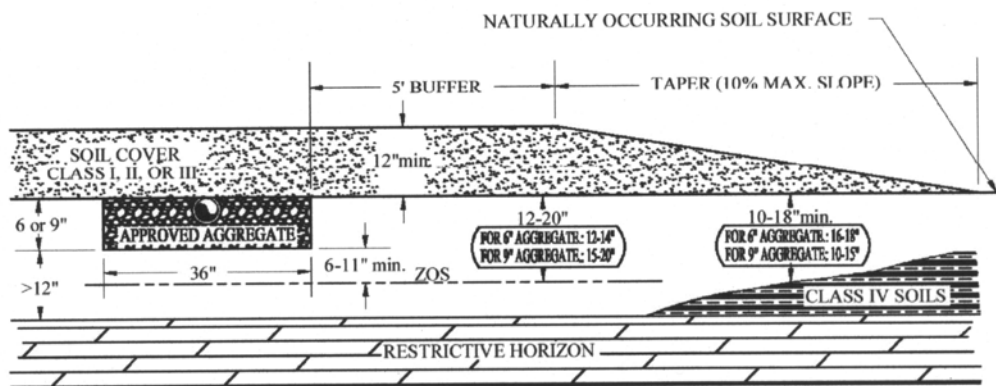
(4) Following final landscaping, seeding or sodding may be required to prevent erosion.

(5) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
SHALLOW PLACEMENT SYSTEM WITH FILL CAP FOR SITES WITH SHALLOW CLASS IV SOILS  
PROGRAM 362 / CODE 370 / CODE 371 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



Depth to ZOS (in)	Depth to Class IV Soil (in)	Amount of Imported Fill Cap / Aggregate Depth (in)	Extension Factor
12	18	12 / 6	1.5
13	17	12 / 6	1.5
14	16	12 / 6	1.5
---	---	---	---
15	15	12 / 9	1.3
16	14	12 / 9	1.3
17	13	12 / 9	1.3
18	12	12 / 9	1.3
19	11	12 / 9	1.3
20	10	12 / 9	1.3

NOT TO SCALE

TLS REV. 031907

411 APPENDIX K -SYSTEM STANDARD 380/381 – DOUBLE AGGREGATE DEPTH WASTEWATER INFILTRATION TRENCHES

411.1 SITE/PERMITTING REQUIREMENTS

(1) Use of the double aggregate depth option must be restricted to soils that meet all textural limitations and required offsets to the zone of saturation (ZOS) and restrictive horizons.

(2) Systems incorporating the double aggregate depth option shall be loaded on the basis of the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.

(3) In order to maintain the same total absorptive area as that provided by conventional aggregate depth systems, the equivalent linear footage requirement for thirty-six (36) inch wide double aggregate depth trenches shall be determined by multiplying the conventional trench requirement by a factor of 0.7.

(4) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

411.2 INSTALLATION REQUIREMENTS

(1) The wastewater infiltration trench aggregate shall be twenty-eight (28) inches in depth, and shall be placed so as to provide twenty (20) inches of aggregate below the pipe, five (5) inches beside the pipe, and three (3) inches above the pipe. The aggregate shall be covered with at least nine (9) inches of backfill.

(2) The wastewater infiltration trench width shall be thirty-six (36) inches.

(3) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

411.3 FINAL LANDSCAPING AND DRAINAGE

(1) Installation of drainage swales, ditches, curtain drains, and rain gutters may be required to divert or intercept water away from the onsite wastewater system location. The septic tank and subsurface wastewater infiltration area shall be backfilled and shaped to promote surface water runoff.

(2) Following final landscaping, seeding or sodding may be required to prevent erosion.

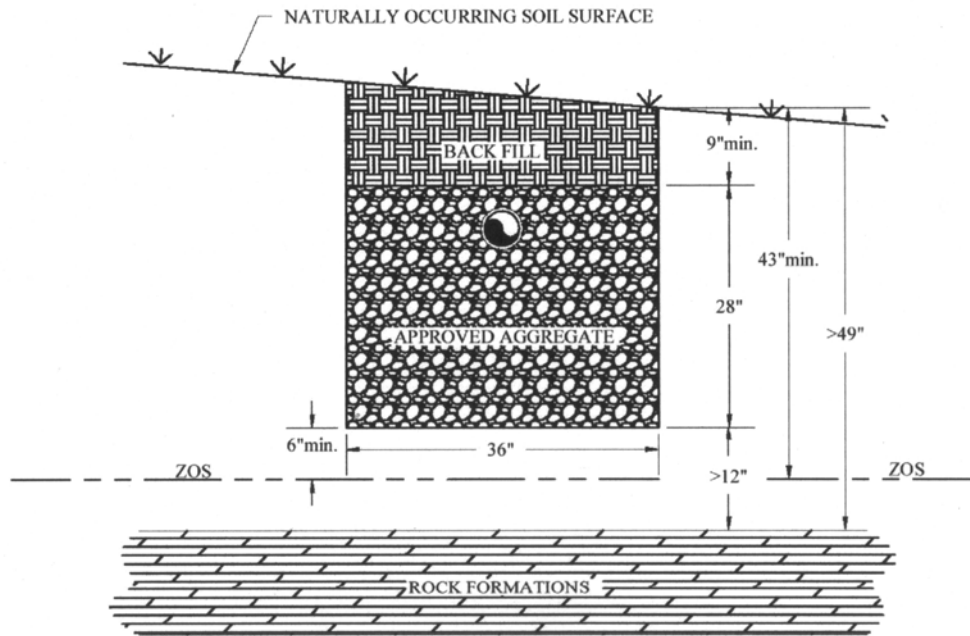
(3) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
DOUBLE AGGREGATE DEPTH SOIL ABSORPTION TRENCHES

PROGRAM 360 / CODE 380 / CODE 381 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



SCALE: 3/4"=1'

T15 REV 03/16/07



## 412 APPENDIX L - SYSTEM STANDARD 420/421 – MOUNDED INFILTRATION SYSTEM

## 412.1 SITE/PERMITTING REQUIREMENTS

- (1) The texture in the upper twelve (12) inches of naturally occurring soil must be Class I or Class II.
- (2) The soil texture in the permeable substratum must be no more limiting than Class II.
- (3) There must not be a zone of saturation (ZOS) within six (6) inches of the naturally occurring soil surface.
- (4) The depth to any restrictive horizon must be greater than twelve (12) inches below the bottom of the proposed wastewater infiltration trenches.
- (5) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.
- (6) Prior to permitting the onsite wastewater system, delineation of any affected jurisdictional wetlands may be required. Should any part of the proposed onsite wastewater system be located in jurisdictional wetlands, approval from the appropriate permitting agency(s) (i.e., US Army Corp. of Engineers, SCDHEC OCRM, etc.) shall be received, and proof of such provided to the Department.
- (7) No part of this system can be installed within 125 feet of the critical area line or tidal waters as determined by the Department; or within 125 feet of the ordinary high water elevation within the banks of non-tidal, environmentally sensitive waters.
- (8) This system cannot be considered for facilities with peak flow rates in excess of four hundred eighty (480) gallons per day. In addition, this system shall not be considered for facilities requiring grease traps.
- (9) This system may not be installed on sites that flood.
- (10) This system must not be utilized on sites that require serial distribution. Level installations on slightly sloping sites can be considered if it can be demonstrated that the entire installation (i.e., side wall to side wall and end to end) will meet the required textural limitations and the required offsets to the zone of saturation and restrictive horizons.
- (11) The total linear footage of six (6) inch deep, thirty-six (36) inch wide wastewater infiltration trenches shall be increased by 100 percent over that which would be required for conventional trenches, as determined by the Long-Term Acceptance Rate of the permeable substratum.
- (12) This system may be considered for installation on contiguous lots in new subdivisions approved after the effective date of this standard provided a setback of at least seventy-five (75) feet is maintained between the system and all adjacent property lines. The seventy-five (75) foot setback shall be measured from the point at which the fill cap taper intersects with the naturally occurring soil surface.

## 412.2 INSTALLATION REQUIREMENTS

## (1) Site Preparation

- (a) The naturally occurring soil surface underlying the area of the wastewater infiltration trenches shall be thoroughly tilled and mixed with the imported medium sand to a depth of six (6) inches.

## 130 FINAL REGULATIONS

(b) All tree and brush removal shall be done in a manner that minimizes the disturbance or loss of naturally occurring soil.

(2) Fill and System (see ref. sketch)

(a) The fill cap and buffer shall be Class I, Class II, or Class III.

(b) The depth of the fill cap shall provide a minimum of twelve (12) inches backfill above the top of the wastewater infiltration trench aggregate (see ref. sketch).

(c) Where gravity flow from the septic tank to the subsurface wastewater infiltration area is utilized, the invert elevation of the septic tank outlet shall be installed at an elevation at least equal to or higher than the top of the aggregate in the highest wastewater infiltration trench(es).

(d) The fill buffer shall be at least fifteen (15) feet in width.

(e) The fill taper shall be at least twenty (20) feet in width.

(f) The required property line setback shall be measured from the point at which the fill cap taper intersects with the naturally occurring soil surface.

(g) The total fill depth, excluding the taper zone, shall be at least eighteen (18) inches above the naturally occurring soil surface.

(h) The wastewater infiltration trenches shall be installed in a Class I fill pad at least six (6) inches in depth, which extends five (5) feet beyond the trenches in all directions.

(i) The wastewater infiltration trenches require a total aggregate depth of six (6) inches.

(j) The wastewater infiltration trench width shall be thirty-six (36) inches.

(k) Infiltration trenches shall penetrate the permeable substratum and shall be at least two (2) feet in width containing USDA medium sand, washed concrete sand, or other material approved by the Department.

(l) Effluent discharged to this system must receive a higher degree of treatment than that provided by a conventional septic tank (i.e. two compartment septic tank or two septic tanks in series).

### 412.3 FINAL LANDSCAPING AND DRAINAGE

(1) The septic tank and fill cap area shall be backfilled and shaped to promote the runoff of surface water.

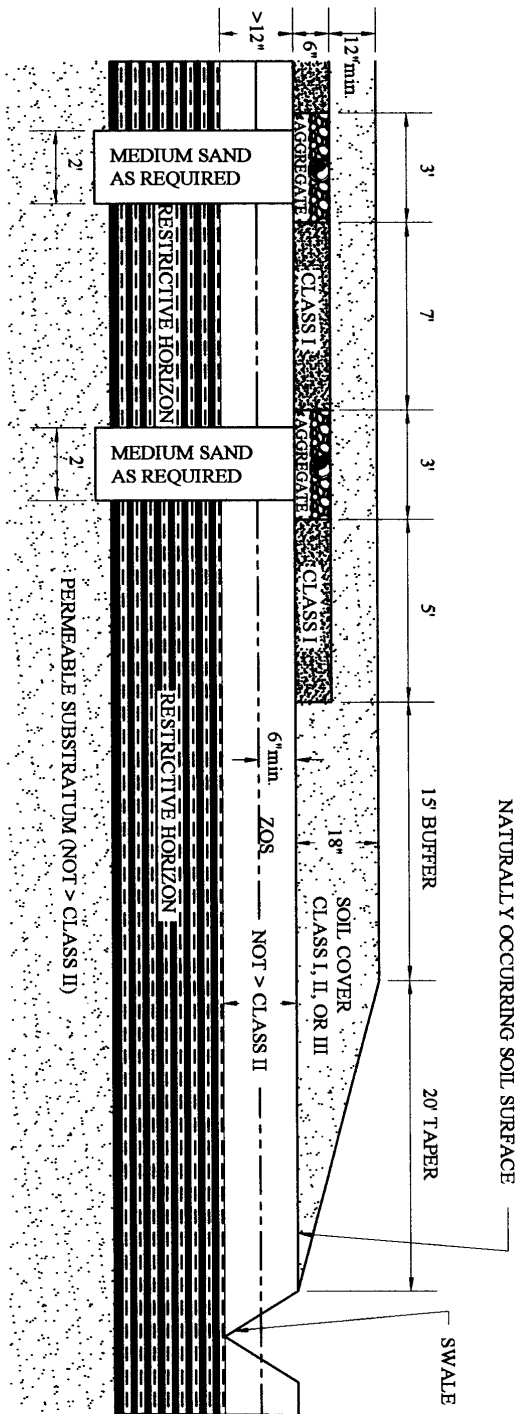
(2) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the filled area to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

- (3) A barrier to preclude parking and vehicular traffic over the system area may be required.
- (4) Following final landscaping, seeding or sodding may be required to prevent erosion.
- (5) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE STANDARD  
MOUNDDED INFILTRATION SYSTEM FOR PERMEABLE SANDS UNDERLYING RESTRICTIVE HORIZONS  
PROGRAM 362 / CODE 420 / CODE 421 IF PUMPED

**TYPICAL DESIGN ILLUSTRATION**



NOT TO SCALE

TLS REV. 08/2005

## 413 APPENDIX M - SYSTEM STANDARD 431 – MOUNDED FILL SYSTEM

## 413.1 SITE/PERMITTING REQUIREMENTS

- (1) This system shall not be used on sites that are subject to flooding.
- (2) The texture in the upper eighteen (18) inches of naturally occurring soil must be Class I or Class II.
- (3) The absorption bed within the mound shall be sized on the Long-Term Acceptance Rate of the most limiting texture in the upper eighteen (18) inches of naturally occurring soil.
- (4) The linear footage of the absorption bed shall be determined in accordance with Standard 270.
- (5) The absorption bed width shall be minimum of five (5) feet and a maximum of 10 feet.
- (6) Mounded fill systems must not be placed on sites with a slope in excess of three (3) percent.
- (7) No part of this system can be installed within 125 feet of the critical area line or tidal waters as determined by the Department; or within 125 feet of the ordinary high water elevation within the banks of non-tidal, environmentally sensitive waters. Because of the long buffer, side slope, fill pad, and taper associated with this system, the one hundred twenty-five (125) foot setback shall be measured from the outer edge of the aggregate bed within the mound.
- (8) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.
- (9) Prior to permitting the onsite wastewater system, delineation of any affected jurisdictional wetlands may be required. Should any part of the proposed onsite wastewater system be located in jurisdictional wetlands, approval from the appropriate permitting agency(s) (i.e., US Army Corp. of Engineers, SCDHEC Ocean and Coastal Resource Management, etc.) shall be received and proof of such provided to the Department.
- (10) This system cannot be considered for facilities with peak flow rates in excess of four hundred eighty (480) gallons per day. In addition, this system shall not be considered for facilities requiring grease traps.
- (11) Effluent discharged to this system must receive a higher degree of treatment than that provided by a conventional septic tank (i.e. two compartment septic tank or two septic tanks in series).
- (12) This system may be considered for installation on contiguous lots in new subdivisions approved after the effective date of this standard provided a setback of at least seventy-five (75) feet is maintained between the system and all adjacent property lines. Because of the long buffer, side slope, fill pad, and taper associated with this system, the seventy-five (75) foot setback shall be measured from the outer edge of the aggregate bed within the mound.

## 413.2 INSTALLATION REQUIREMENTS

## (1) Site Preparation

- (a) If present within eighteen (18) inches of the naturally occurring soil surface, organic material and restrictive horizons must be removed from beneath the mound and replaced with USDA medium

## 134 FINAL REGULATIONS

sand, washed concrete sand, or an equivalent material approved by the Department. The replacement area must extend five (5) feet in all directions beyond the edges of the aggregate filled absorption bed.

(b) The naturally occurring soil surface underlying the mound shall be thoroughly tilled and mixed with the imported mound fill material to a depth of six (6) inches.

### (2) Mound/Absorption Bed Requirements

(a) Low Pressure Pipe Distribution (LPP) must be utilized to preclude localized hydraulic overloading of the imported fill material and to minimize the impact on the shallow zone of seasonal saturation.

(b) There must be at least twenty-four (24) inches of medium sand placed between the naturally occurring soil surface and the bottom of the absorption bed. Also, the bottom surface of the absorption bed must be placed at least twenty-four (24) inches above the zone of saturation.

(c) If the slope of the site in the proposed mound area is one (1) percent or less, then the mound shall be placed on a twelve (12) inch fill pad which must extend twenty (20) feet beyond the mound in all directions. If the slope of the site in the proposed mound area is greater than one (1) percent but less than or equal to three (3) percent, then the mound shall be placed on a twelve (12) inch deep fill pad which must extend twenty (20) feet beyond the mound area on the sides of the mound; forty (40) feet beyond the mound area on the down slope side of the mound; with no fill pad required on the upslope side of the mound.

(d) The mound and fill pad material shall be USDA medium sand, washed concrete sand, or other equivalent material approved by the Department.

(e) The depth of the fill cap material above the absorption bed shall be nine (9) to fifteen (15) inches of soil texture Class II or III. Sod may be substituted for four (4) inches of this portion of the fill cap material. (see attached illustration).

(f) The depth of the fill cap material above the mound side-slope, the twelve (12) inch deep fill pad, and the taper shall be at least four (4) inches of soil texture Class II or III. Sod may be substituted for this portion of the fill cap material. (see attached illustration).

(g) A 1:2 maximum slope is required if the mound side-slope and taper are sodded.

(h) A 1:4 maximum slope is required if the mound side-slope and taper are mulched and seeded.

### (3) Final Landscaping And Drainage Requirements

(a) The septic tank and mound area shall be backfilled and shaped to promote the runoff of surface water.

(b) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the filled area to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

(c) A barrier to preclude parking and vehicular traffic over the system area may be required.

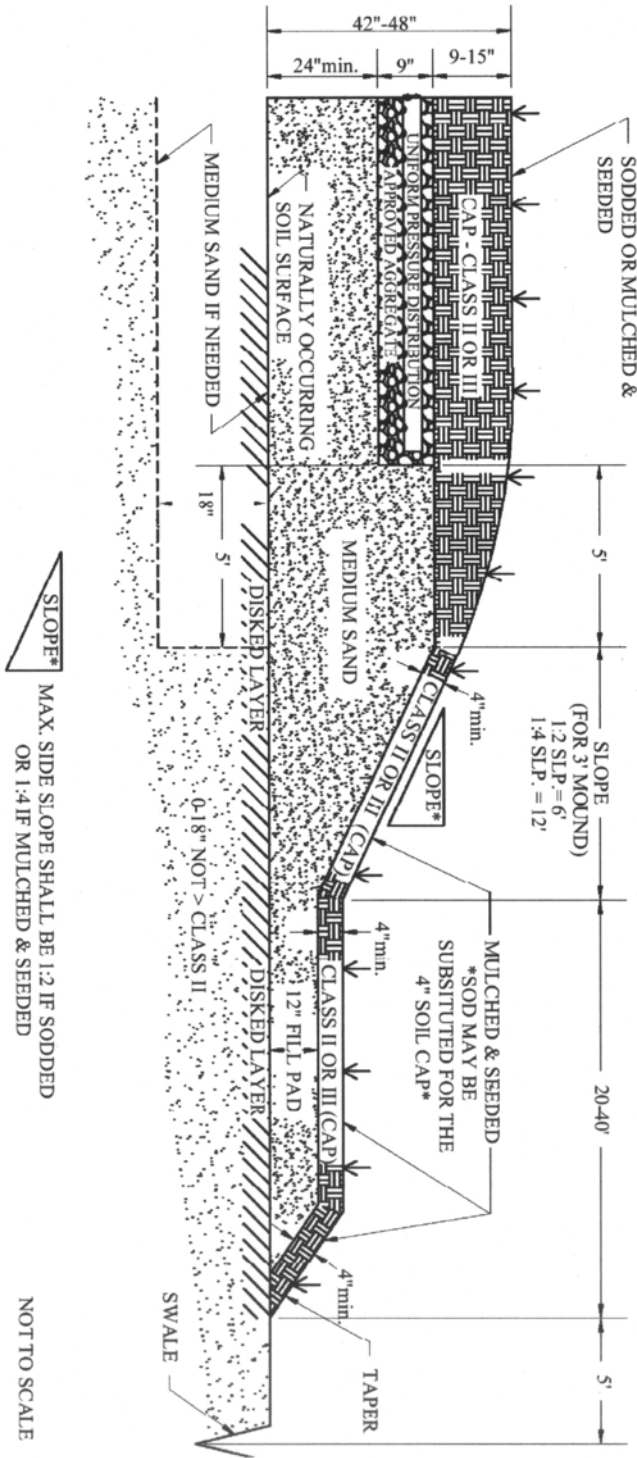
(d) Following final landscaping, seeding or sodding may be required to prevent erosion.

(e) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
MOUNDED FILL SYSTEMS  
PROGRAM 362 / CODE 431

TYPICAL DESIGN ILLUSTRATION





## 414 APPENDIX N -SYSTEM STANDARD 601 – ELEVATED INFILTRATION SYSTEM

## 414.1 SITE/PERMITTING REQUIREMENTS

(1) The texture in the upper eighteen (18) inches of naturally occurring soil must be Class I or Class II.

(2) The filter shall not be placed on slopes greater than three (3) percent.

(3) This system cannot be considered for facilities with peak flow rates in excess of four hundred eighty (480) gallons per day. In addition, this system shall not be considered for facilities requiring grease traps.

(4) There shall be a buffer of at least fifty (50) feet surrounding and separating the system from all adjacent property lines. This buffer shall be measured from the retaining wall.

(5) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(6) This system shall not be placed on sites that flood.

(7) No part of this system can be installed within 125 feet of the critical area line or tidal waters as determined by the Department; or within 125 feet of the ordinary high water elevation within the banks of non-tidal, environmentally sensitive waters.

(8) Prior to permitting the onsite wastewater system, delineation of any affected jurisdictional wetlands may be required. Should any part of the proposed onsite wastewater system be located in jurisdictional wetlands, approval from the appropriate permitting agency(s) (i.e., US Army Corp. of Engineers, SCDHEC Ocean and Coastal Resource Management, etc.) shall be received, and proof of such provided to the Department. The absorption bed shall be sized on the most limiting soil texture class in the upper eighteen (18) inches of naturally occurring soil.

(9) The total bottom area of the filter must be increased by fifty (50) percent above that required for conventional trenches.

(10) This system may be considered for installation on contiguous lots in new subdivisions approved after the effective date of this standard provided a setback of at least seventy-five (75) feet is maintained between the system and all adjacent property lines. The seventy-five (75) foot setback shall be measured from the point at which the retaining wall intersects the naturally occurring soil surface.

## 414.2 INSTALLATION REQUIREMENTS

## (1) Site Preparation

(a) If present within eighteen (18) inches of the naturally occurring soil surface, organic material and restrictive horizons must be removed from beneath the filter and replaced with USDA medium sand, washed concrete sand, or an equivalent material approved by the Department.

(b) The naturally occurring soil surface underlying the filter shall be thoroughly tilled and mixed with the imported filter material to a depth of six (6) inches.

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### (2) System Requirements

(a) The filter must be constructed to a height of at least thirty-six (36) inches above the original grade, with the sewage effluent passing through at least twenty-four (24) inches of filter material.

(b) The filter material shall be USDA medium sand, washed concrete sand or other material approved by the Department.

(c) The filter retaining wall shall extend at least four (4) inches above the surface of the filter material and shall penetrate the naturally occurring soil surface at least four (4) inches.

(d) The filter retaining wall shall be constructed in accordance with the accompanying design illustrations.

(e) Effluent discharged to this system must receive a higher degree of treatment than that provided by a conventional septic tank (i.e., two compartment septic tank or two septic tanks in series).

(f) The top of the filter shall be capped with Class II or Class III soil, and shall slope from center to edges in order to promote surface runoff.

### (3) Distribution Requirements

(a) Low Pressure Pipe Distribution (LPP) must be utilized to preclude localized hydraulic overloading of the imported fill material and to minimize the impact on the shallow zone of saturation.

(b) Pump design shall be in accordance with Department standards.

## 414.3 FINAL LANDSCAPING AND DRAINAGE REQUIREMENTS

(1) Fill material shall be placed around the outside of the filter to a depth of 1 foot, and shall slope to original grade at a point five (5) feet from the retaining wall.

(2) The septic tank and filter area shall be backfilled and shaped to promote the runoff of surface water.

(3) Where natural surface drainage does not exist, a swale shall be constructed adjacent to the filter to divert surface water away from the onsite wastewater system to a positive outfall. The installation of ditches, curtain drains, and/or rain gutters may be required to intercept and divert water away from the onsite wastewater system location.

(4) Following final landscaping, seeding or sodding may be required to prevent erosion.

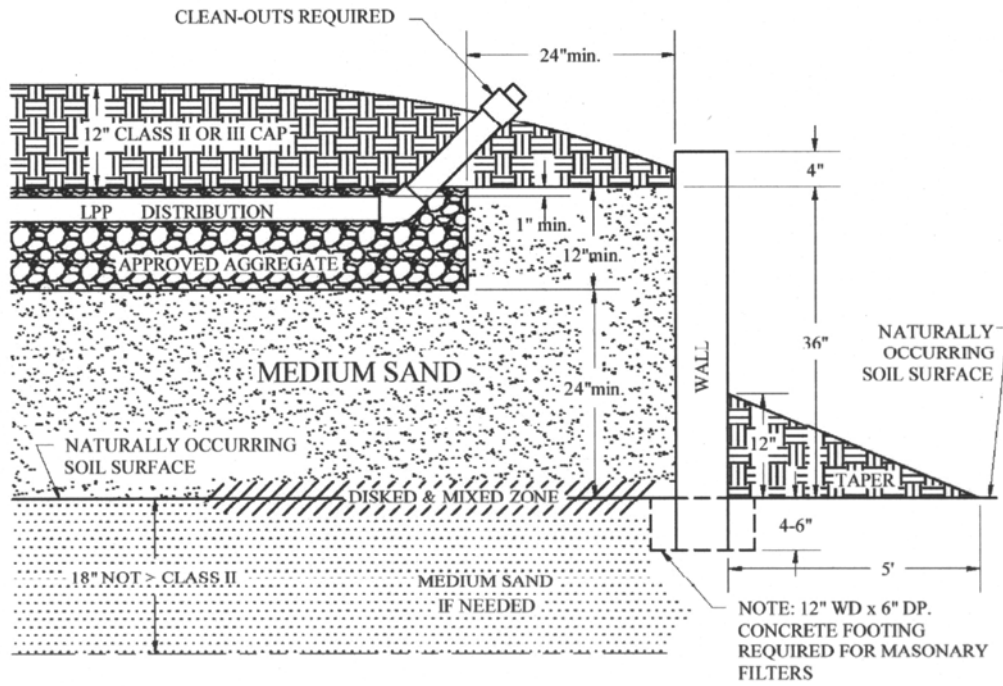
(5) Final approval shall be withheld until all landscaping and drainage improvements have been satisfactorily completed.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
ELEVATED INFILTRATION SYSTEM

PROGRAM 362 / CODE 601

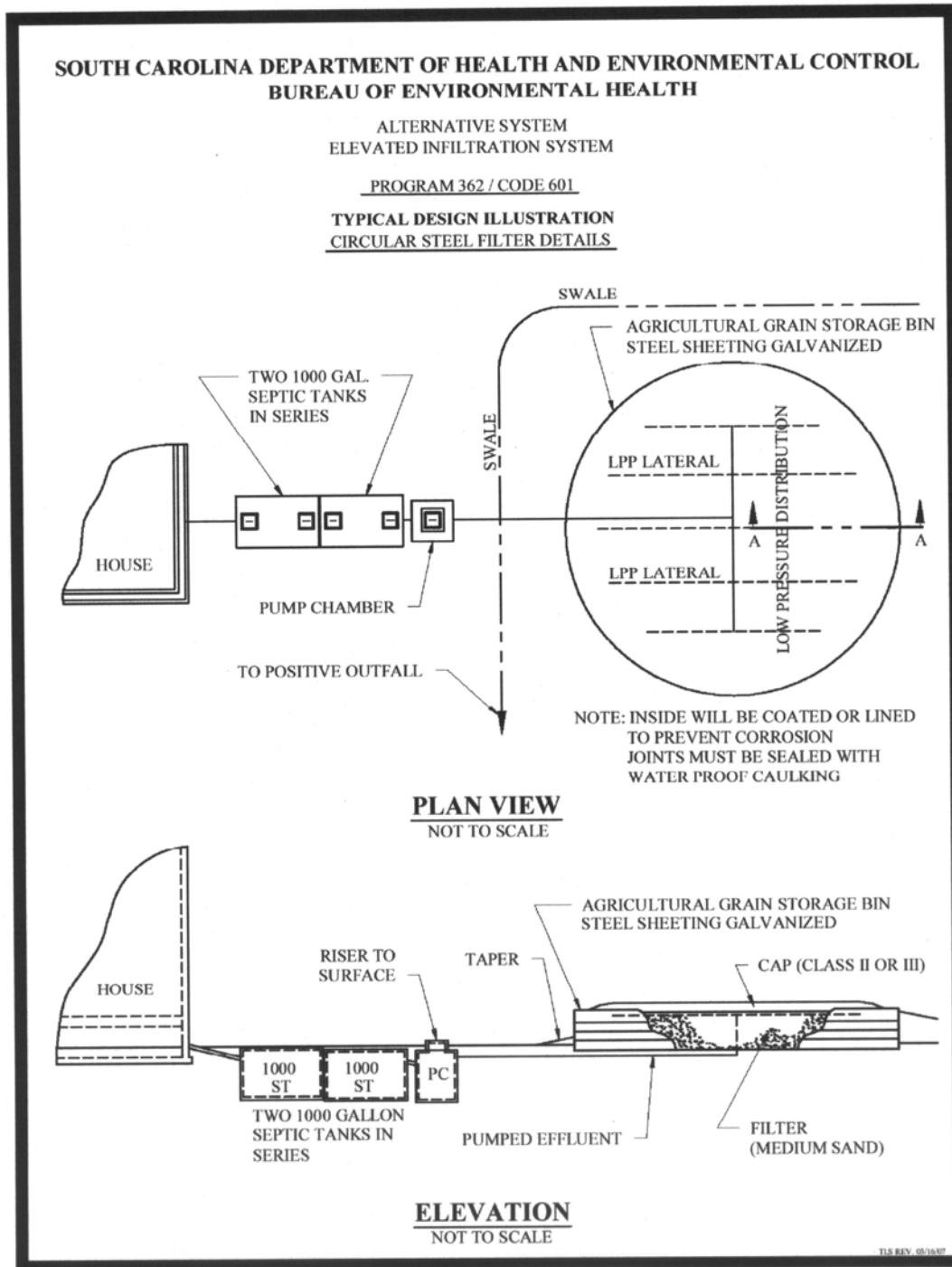
**TYPICAL DESIGN ILLUSTRATION**



**SECTION A-A**

NOT TO SCALE

TLS REV. 03/2007

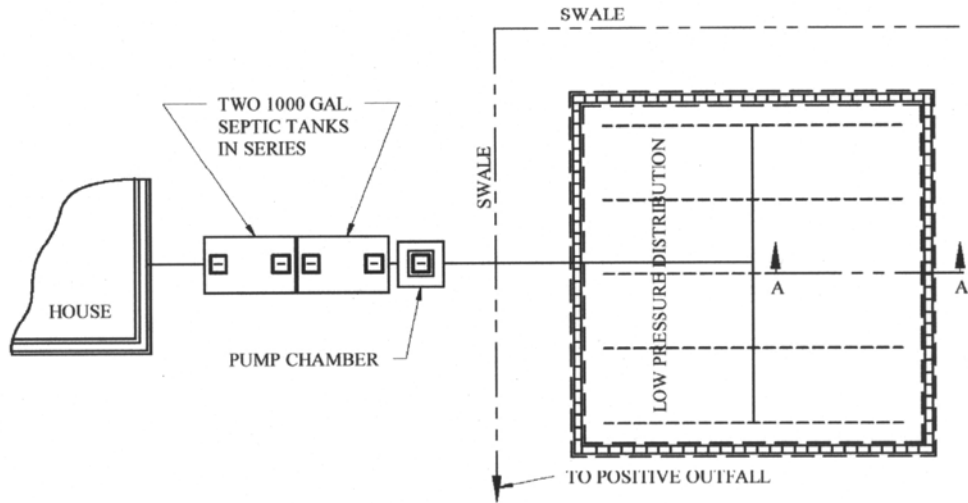


**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

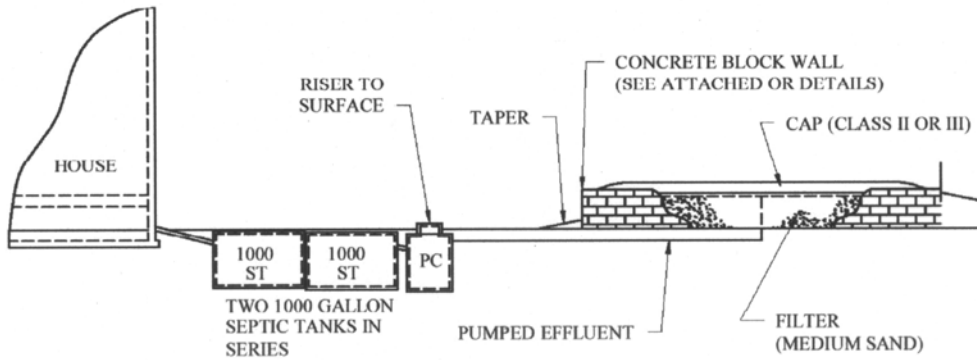
ALTERNATIVE SYSTEM  
ELEVATED INFILTRATION SYSTEM

PROGRAM 362 / CODE 601

TYPICAL DESIGN ILLUSTRATION  
SQUARE CONCRETE & BLOCK FILTER DETAILS



**PLAN VIEW**  
NOT TO SCALE



**ELEVATION**  
NOT TO SCALE

TIS REV. 03/26/07

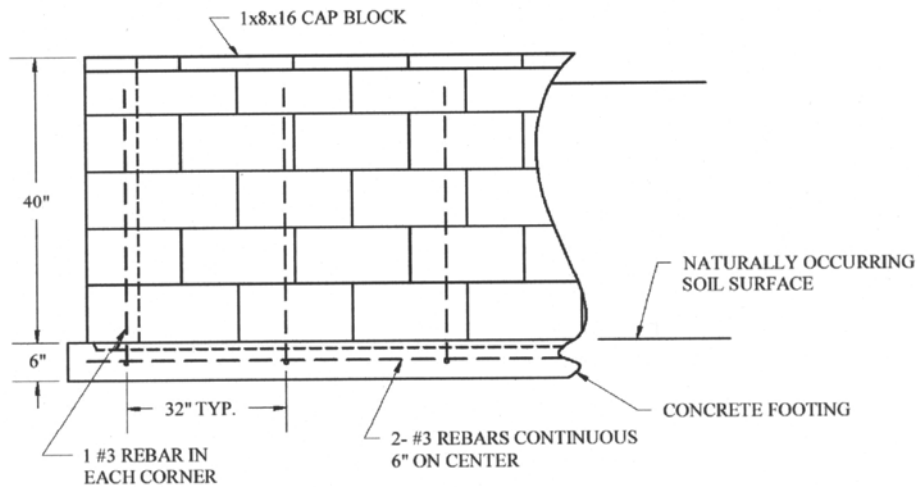
**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

ALTERNATIVE SYSTEM  
ELEVATED INFILTRATION SYSTEM

PROGRAM 362 / CODE 601

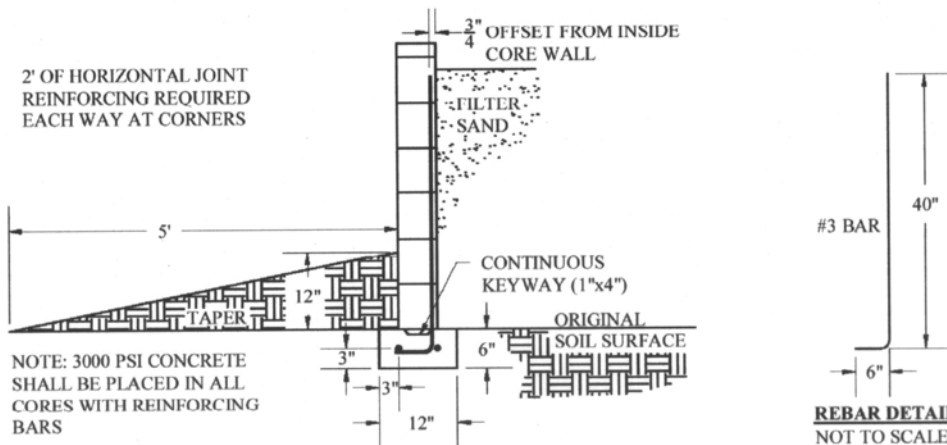
TYPICAL DESIGN ILLUSTRATION

SQUARE CONCRETE & BLOCK FILTER - WALL & FOUNDATION DETAIL



**WALL & FOUNDATION DETAIL**

NOT TO SCALE



NOTE: 3000 PSI CONCRETE SHALL BE PLACED IN ALL CORES WITH REINFORCING BARS

**REBAR DETAIL**

NOT TO SCALE

**WALL SECTION DETAIL**

NOT TO SCALE

NOTE: 14 DAY MINIMUM CURE TIME FOR WALL & FOUNDATION REQUIRED BEFORE INSTALLING FILTER SAND

715 REV. 03/16/07

415 APPENDIX O -SYSTEM STANDARD 610 – SPECIALIZED ONSITE WASTEWATER SYSTEM DESIGNS (LESS THAN 1500 GPD)

(1) This Standard shall not apply to the following:

(a) Projects where two or more pieces of deeded property will share a common system.

(b) Residential or commercial projects where the individual or combined peak sewage flow is estimated to be in excess of fifteen hundred (1500) gpd.

(c) Projects that discharge wastes containing high amounts of fats, grease, and oil, including restaurants and other food service facilities, unless the system manufacturer certifies that the proposed system is designed to treat such high strength wastes.

(d) Industrial process wastewater.

(2) Each site must first be evaluated by the county health department in accordance with R. 61-56 and approved standards.

(a) If the site is found to be unsuitable, the applicant will be notified of these findings in the review letter and offered the opportunity to pursue an approval for a specialized onsite wastewater system design.

(b) If the site is found to be suitable for a conventional or alternative system, a Permit To Construct will be issued for the appropriate system. Following this activity, the applicant still has the right to pursue a specialized onsite wastewater system design in accordance with the procedures outlined herein. In such cases, the required engineering and soils documentation shall be submitted and the Permit To Construct shall be revised to reflect the specific system to be utilized before construction begins.

(3) After the requirements listed in Item 2. (above) are satisfied, a site may be considered for a specialized onsite wastewater system design if written documentation provided by the consulting engineer, including soil studies performed by a Professional Soil Classifier, indicates that the proposed system will function satisfactorily and in accordance with all requirements of R. 61-56. Such substantiating documentation must include the following:

(a) A Soils Report from a Professional Soil Classifier licensed in the State of South Carolina including detailed soil profile descriptions and Soil Series classification(s) utilizing methods and terminology specified in the Field Book for Describing and Sampling Soils; depth to the zone of saturation utilizing methods and terminology outlined in Redoximorphic Features for Identifying Aquic Conditions, and other appropriate principles specified in Soil Taxonomy; the depth to restrictive horizons; and a description of topography and other pertinent land features.

(b) Delineation of any affected jurisdictional wetlands, if applicable. Should any part of the proposed onsite wastewater system be located in jurisdictional wetlands, approval from the appropriate permitting agency(s) {i.e., US Army Corps of Engineers, SCDHEC Ocean and Coastal Resource Management, etc.} shall accompany the application for a specialized onsite wastewater system design.

(c) There shall be a replacement area equivalent to at least fifty (50) percent in size of the original system area held in reserve for system repair. This area shall have a suitable configuration, and shall meet the minimum soil and site conditions of R. 61-56.

(d) A plan that has been sealed, signed, and dated by a Professional Engineer licensed in the State of South Carolina certifying that the proposed onsite wastewater system has been designed in accordance

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with the requirements of R. 61-56 and will function satisfactorily. The plan should also show an area equivalent to at least fifty (50) percent in size of the original system held in reserve for system repair.

(e) The manufacturer's recommendations for operation and maintenance of the system, and the consulting engineer's management plan to meet this.

(4) Any Permit To Construct that is issued pursuant to this standard shall be based upon the consulting engineer's design, certification, and other supporting documentation provided by the Professional Soil Classifier.

(5) The consulting engineer shall be responsible for supervising construction of the system and providing the county health department with a certified "as built" plan of the actual installation. Any Final Approval that is released pursuant to this standard shall be based upon this engineering certification.

### 416 APPENDIX P - CURTAIN DRAIN STANDARD

#### 416.1 MINIMUM CONSTRUCTION REQUIREMENTS

(1) Only pipe having received written approval from the Department may be utilized in curtain drains. This approval shall be based upon the pipe meeting all applicable ASTM standards.

(2) The aggregate used in curtain drains shall be a material approved by the Department and shall range in size from one-half ( $\frac{1}{2}$ ) inch to two and one-half ( $2\frac{1}{2}$ ) inches. Fines are prohibited.

(3) The curtain drain trench shall be at least six (6) inches wide.

(4) The curtain drain shall be placed ten (10) feet upslope and twenty-five (25) feet down slope of a subsurface wastewater infiltration area or repair area. Where the aggregate portion of the curtain is installed at the same or lower (down slope) elevation relative to an adjacent subsurface wastewater infiltration area or repair area, the aggregate portion of the curtain must be a minimum of twenty-five (25) feet from adjacent the subsurface wastewater infiltration area or repair area.

(5) The trench bottom shall have a uniform slope to the discharge point. A minimum one (1) percent fall (12 inches per 100 feet) shall be utilized. Trench excavation with a ditch witch is permissible provided the trench bottom has a uniform down slope gradient.

(6) The solid discharge (non-aggregate) line shall be fifteen (15) feet from adjacent subsurface wastewater infiltration area or repair area.

(7) The down slope side of the trench toward the subsurface wastewater infiltration area shall have a minimum six (6) mil poly or an equivalent strong, treated impervious material draped from the trench surface to the trench bottom to prevent groundwater from bridging the curtain drain.

(8) Agricultural drainpipe (slitted) with a minimum diameter of four (4) inches shall be placed along the trench bottom in the aggregate portion. Perforated pipe is acceptable, provided the perforations are installed facing either sideways or upward.

(9) There shall be at least two (2) inches of aggregate beneath the drainpipe.

(10) The aggregate shall be brought to at least six (6) inches from the ground surface.



(11) The aggregate shall be covered with a strong, untreated pervious material to prevent infiltration of back fill material.

(12) Solid drainpipe with a minimum diameter of four (4) inches shall be placed along the trench bottom from the aggregate to the discharge point.

(13) The curtain drain must discharge to the ground surface past the last wastewater infiltration trench line.

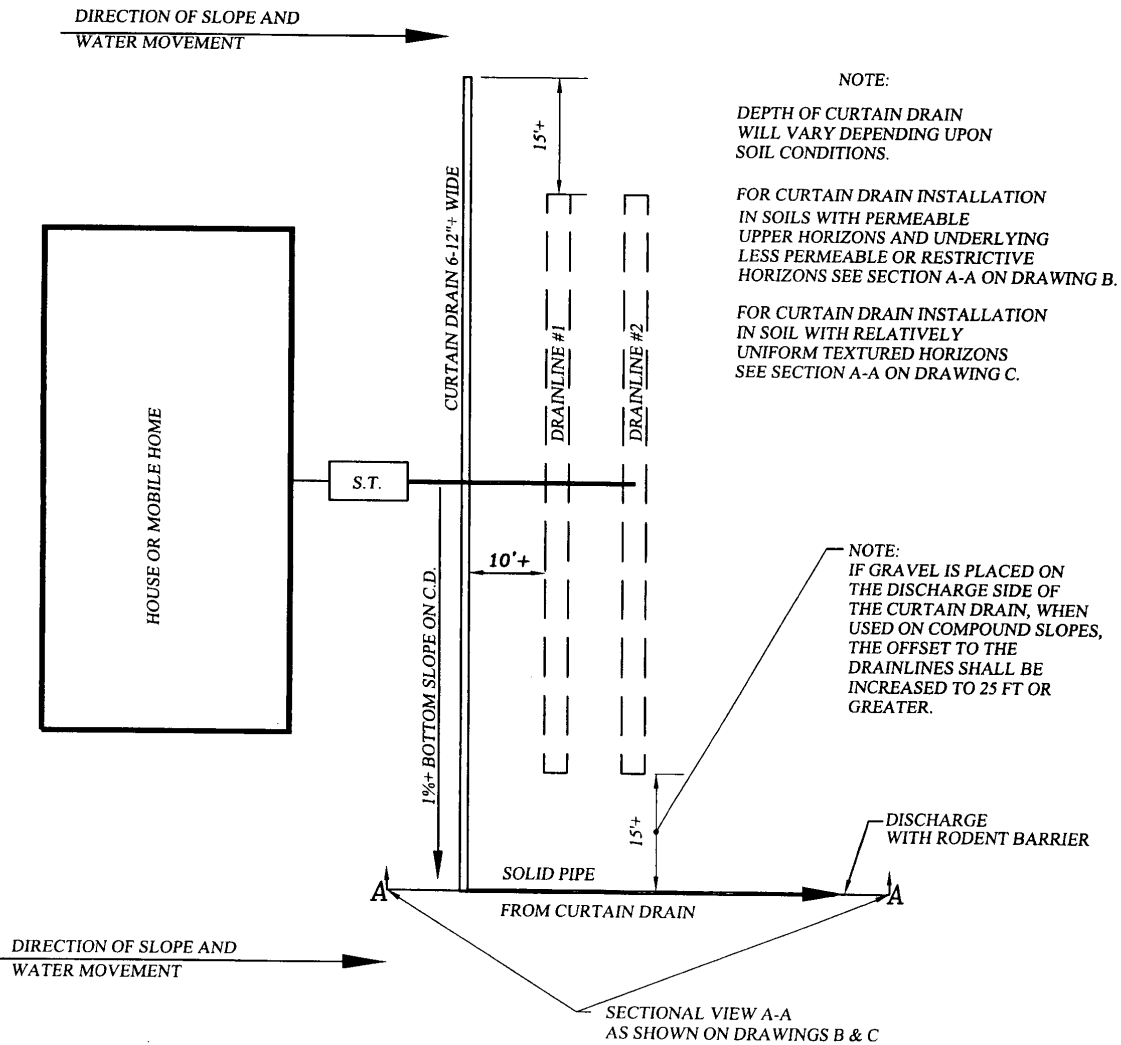
(14) Rodent barriers on discharge pipe outlet(s) are required.

(15) If the curtain drain's trench bottom depth exceeds thirty (30) inches, it shall be inspected prior to the aggregate being installed to insure proper trench depth and grade. It is acceptable to place the pipe and aggregate in the trench prior to the final inspection when a probe rod can be used to accurately measure trench bottom depth.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

**CURTAIN DRAIN STANDARD**

**TYPICAL DESIGN SKETCH**



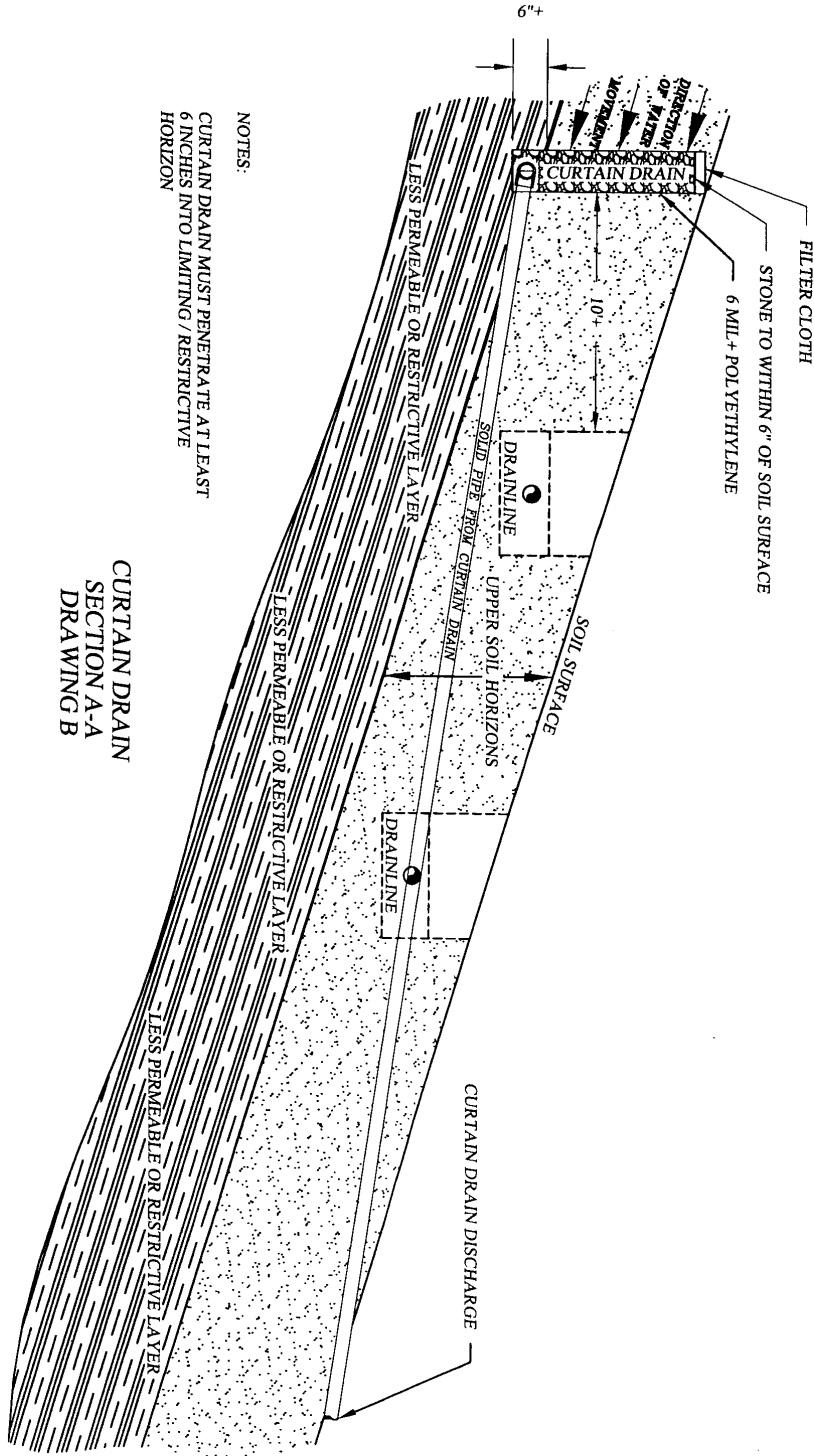
**DRAWING A**

T.L.S.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH**

**CURTAIN DRAIN STANDARDS**

CURTAIN DRAIN INSTALLATION IN SOILS WITH RESTRICTIVE OR LESS PERMEABLE HORIZONS BELOW THE DRAINFIELD  
**TYPICAL DESIGN SKETCH**



NOTES:  
CURTAIN DRAIN MUST PENETRATE AT LEAST  
6 INCHES INTO LIMITING / RESTRICTIVE  
HORIZON

CURTAIN DRAIN  
SECTION A-A  
DRAWING B

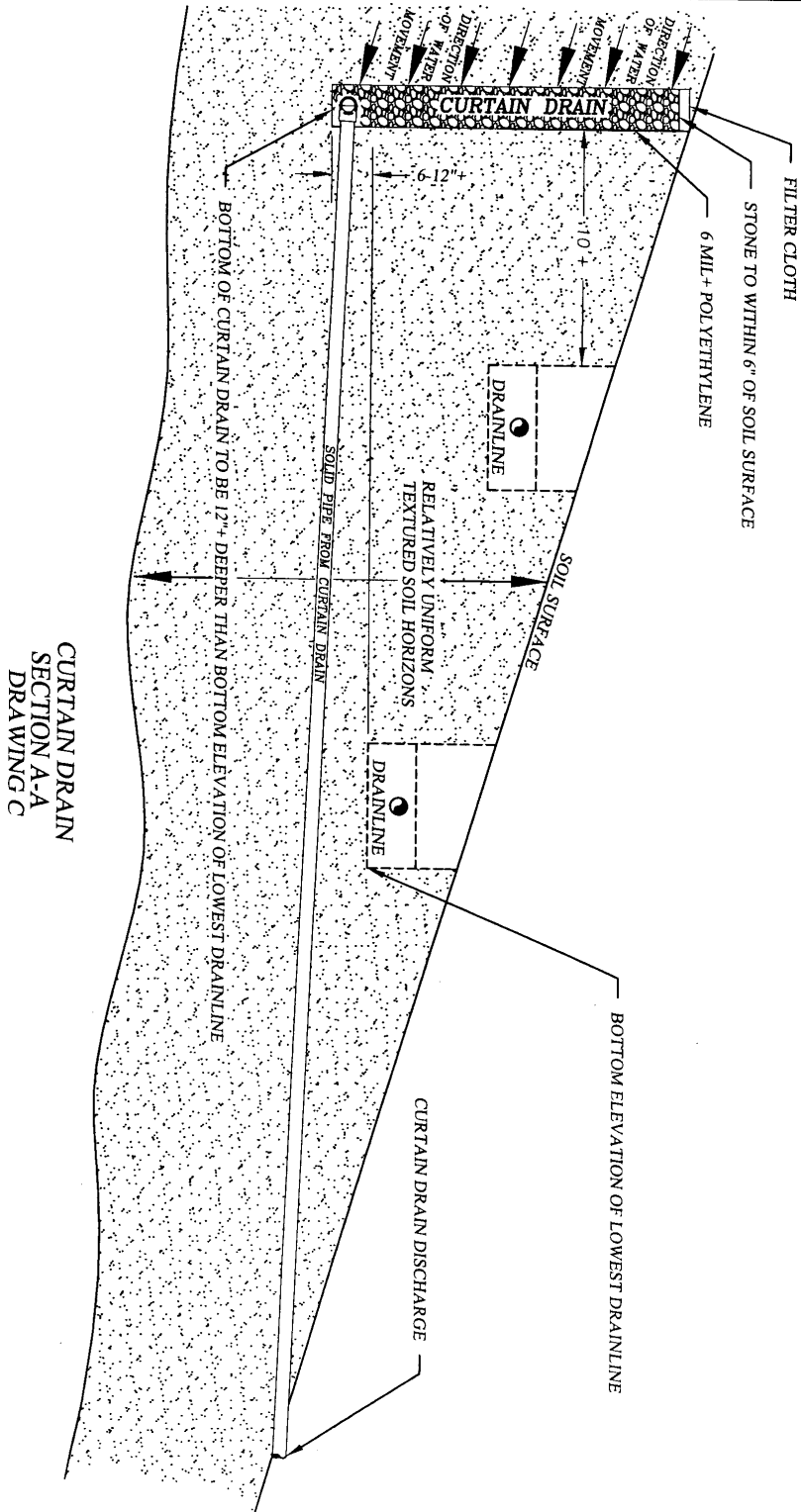
DRAWING NOT TO SCALE

T.L.S.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
BUREAU OF ENVIRONMENTAL HEALTH

CURTAIN DRAIN STANDARDS

CURTAIN DRAIN INSTALLATION IN SOILS WITH RELATIVELY UNIFORM HORIZONS  
TYPICAL DESIGN SKETCH



CURTAIN DRAIN  
SECTION A-A  
DRAWING C

DRAWING NOT TO SCALE

T.L.S.

500 APPENDIX Q - LONG-TERM ACCEPTANCE RATE STANDARD FOR ONSITE WASTEWATER SYSTEMS

USDA-NRCS SOIL TEXTURE	SOIL CHARACTERISTICS WHEN MOIST (FIELD TEST)	LONG-TERM ACCEPTANCE RATE (GPD/SF)	
Sand (S)	Sandy has a gritty feel, does not stain the fingers, and does not form ribbon or ball when wet or moist.	0.9 – 1.0	Class I
Loamy Sand (LS)	Loamy sand has a gritty feel, stains the fingers, forms a weak ball, and cannot be handled without breaking.		
Sandy Loam (SL)	Sandy loam has a gritty feel and forms a ball that can be picked up with the fingers and handled with care without breaking.	0.7 – 0.8	Class II
Loam (L)	Loam may have a slightly gritty feel but does not show a fingerprint, and forms only short ribbons of from 0.25 – 0.50 inch. Loam will form a ball that can be handled without breaking.		
Sandy Clay Loam (SCL)	Sandy clay loam has a gritty feel but contains enough clay to form a firm ball, and may ribbon from 0.75 – 1.0 inch.	0.5 – 0.6	Class III
Clay Loam (CL)	Clay loam is sticky when moist, forms a ribbon of 1.0 – 2.0 inches, and produces a slight sheen when rubbed with the thumbnail. Clay loam produces a nondistinct fingerprint.		
Silt Loam (SiL)	Silt loam has a floury feel when moist and will show a fingerprint, but will not ribbon and forms only a weak ball.		
Silty Clay Loam (SiCL)	Silty clay loam has a slight floury feel, is sticky when moist, and will ribbon from 1.0 – 2.0 inches. Rubbing with thumbnail produces a moderate sheen. Silty clay loam produces a distinct fingerprint.	0.1 – 0.4	Class IV
Sandy Clay (SC)	Sandy clay is plastic, gritty, and sticky when moist, forms a firm ball, and produces a ribbon in excess of 2.0 inches.		
Clay (C)	Clay is both sticky and plastic when moist, produces a ribbon in excess of 2.0 inches, produces a high sheen when rubbed with the thumbnail, and forms a strong ball resistant to breaking.		
Silty Clay (SiC)	Silty clay has a slight floury feel, is both sticky and plastic when moist, forms a ball, and produces a ribbon in excess of 2.0 inches.		

(1) The long-term acceptance rate for system sizing shall be based upon the most hydraulically limiting naturally occurring soil texture from the ground surface to twelve (12) inches below the bottom of the proposed wastewater infiltration trenches. Alternative and experimental systems installed beneath expansive soils shall be sized at a long-term acceptance rate not to exceed 0.2-0.25 GPD/SF as specified in approved standards.

(2) Soil texture shall be estimated by field testing as described above. Laboratory determination of soil texture may be substituted for field testing when conducted in accordance with: (1) Bouyoucos, G.J. 1962. Hydrometer Method Improved for Making Particle Size Analyses of Soils. Agron. J. 53:464-465; (2) ASTM D-422 Procedures for Sieve and Hydrometer Analyses; or (3) the Pipette Method (ASA-CSSA-SSSA), USDA Methods of Soils Analysis, Soil Survey Laboratory Information Manual, and Soil Survey Laboratory Methods Manual.

(3) The total linear feet (LF) for conventional onsite wastewater systems shall be calculated by dividing the peak daily flow (GPD) by the long-term acceptance rate (GPD/SF) and dividing the result by the trench width (FT):  $LF = GPD \div GPD/SF \div FT$ . The total linear feet for alternative systems may either be increased or decreased in accordance with factors specified in alternative standards.

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**501 APPENDIX R - PEAK SEWAGE FLOW RATE STANDARD**

ESTABLISHMENT	UNIT	PEAK FLOW RATE GAL/UNIT/DAY
Airport (Not Including Food Service)	Passenger	3
Assembly Halls	Person	3
Bar (Not Including Food Service)	Customer Seat	5 15
Beauty/Style Shops/Barber Shops	Chair	100
Businesses/Offices/Factories	Employee/Shift	15
	Transient Employee (4 hrs or Less/Shift)	10
(Add for Showers)	Employee	10
Camps (No Laundry)		
-Labor/Summer/Retreat	Person	35
(Separate Food Service)	Person	10
(Separate Bath House)	Person	25
-Day Camps (with meal)	Person	15
(without meal)	Person	10
Campgrounds (No Laundry)		
-Full Water/Sewer	Campsite	120
-No Sewer Risers, Bathhouse only	Campsite	50
(Add for Dump Station)	Campsite	40
Car Wash (Non-automatic)	Bay	500
Church (No Daycare)		
-With Kitchen	Seat	3
-Without Kitchen	Seat	2
-Family Life Center	Person	5
Day Care	Child	10
Food Service		
-Full Service Utensils	Meal	4
	Person	10
	Seat	40
-Paper/Plastic Utensils		Reduce by 50 percent
Golf Course Club House (Not Including Foodservice)	Player	10
Kennel	Run	25
Laundromat	Machine	500
ESTABLISHMENT	UNIT	PEAK FLOW RATE GAL/UNIT/DAY
Mortuary	Body	25
Motel (Not Including Food Service)	Room	100
Picnic Park	Visitor	10
Public Restroom	User	3
Residential (i.e., Apartment/Condominium/Individual Dwelling, including Resort Rental and Resort Residence)	Bedroom	120
Residential Care	Resident	100
School		
-With Cafeteria, Gym &	Student	15

Showers		
-With Cafeteria only	Student	10
-Without Cafeteria, Gym or Showers	Student	8
-Boarding School	Person	60
Stadium (Not Including Food Service)		
	Seat/Occupancy	3
Swimming Area Bathhouse	Person	10
Visitor Center	Visitor	5

The peak flow rate (GPD) for non-residential facilities may either be increased or reduced when comparable peak water consumption data for similar establishments in similar locations vary from the requirement. When considering such data, at least twelve (12) consecutive months must be presented with the maximum month of consumption and the days of operation per month being utilized to arrive at the peak flow rate (GPD).

600 APPENDIX S - ONSITE WASTEWATER PUMP SYSTEM STANDARD

600.1 PUMP TANK (GENERAL)

(1) The submersible sewage effluent pump(s) must be housed in a properly vented, watertight tank that is readily accessible from the surface.

(2) A watertight access opening with removable lid shall be provided, and shall be designed and maintained to prevent surface water inflow. Risers and other pump tank sections, where present, shall be joined using mastic, butyl rubber, or other pliable sealant that is waterproof, corrosion-resistant, and approved for use in septic tanks.

(3) When the pump tank must be located in an area characterized by a shallow zone of seasonal saturation, the Department may require the use of a pre-cast manhole, a fiberglass or polyethylene basin, or any other acceptable method for preventing groundwater intrusion.

(4) When the pump tank must be located in an area that is environmentally sensitive or subject to flooding, applicable portions of R. 61-67, Standards for Wastewater Facility Construction, shall apply.

(5) The pump tank shall have sufficient capacity to accommodate all level control and alarm switches; to keep the pump(s) totally submersed in liquid at all times; and to provide the required dosing volume and minimum pump run time. It is strongly recommended that pump tank capacities be as large as possible (i.e., 500-1000 gal.) in order to provide emergency storage in the event of pump or power failure.

(6) Pre-engineered, manufactured packaged pump stations can be utilized in lieu of the composite design described herein, provided the pump meets the minimum capacity requirements of the system and no alterations are made to the pump station other than those specifically authorized by the manufacturer.

600.2 MINIMUM PUMPING RATES (PEAK INFLOW) AND MINIMUM RUN TIMES

(1) For residential systems, the maximum daily flow entering the pump tank shall be based upon one hundred twenty (120) gpd per bedroom. For commercial and other facilities, this value shall be based upon the Standard for Determining Sewage Flow Rates from Commercial and Recreational Establishments.

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(2) The minimum pumping rate (peak inflow) for discharges up to fifteen hundred (1500) gpd shall be determined as follows:

<u>Maximum Estimated Daily Flow (gpd)</u>	<u>Minimum Pumping Rate (peak inflow) (gpm)</u>
480 and less	10
481 - 720	15
721 - 1500	20

(3) The minimum pumping rate (peak inflow) for discharges in excess of fifteen hundred (1500) gpd shall be determined by multiplying the average flow rate (gpm) times a peaking factor of not less than 2.5, where the average flow rate is based upon actual minutes per day of facility operation.

(4) The minimum pump run time for all pump systems shall be determined as follows:

<u>Minimum Pumping Rate (peak inflow) (gpm)</u>	<u>Minimum Pump Run time (min)</u>
10 - 14	3
15 - 24	4
25 and above	5

### 600.3 MINIMUM DOSING VOLUME, SCOURING VELOCITY, AND PUMP CAPACITY

(1) The minimum dosing volume (gal) shall be determined by multiplying the minimum pumping rate (gpm) times the minimum pump run time (min).

(2) The selected pump(s) must have the capacity to deliver the minimum pumping rate (gpm) at a scouring velocity of at least one (1) ft/sec (effluent) or two (2) ft/sec (raw) against the total dynamic head of the system. This minimum pump capacity (gpm at total feet of dynamic head) shall be specified on SCDHEC Form 1739.

(3) Duplex pumps shall be required when the maximum estimated daily flow is equal to or greater than fifteen hundred (1500) gallons, and each pump shall meet the minimum capacity as stated above.

(4) In those cases where the minimum pump capacity or any other system requirements exceed what can be specified thru the use of this Standard, the Department shall require the applicant to retain the services of a Registered Professional Engineer.

### 600.4 FORCE MAIN, VALVES, AND FITTINGS

(1) The force main shall be Schedule 40 PVC, and the diameter shall be sufficient to provide a velocity of at least one (1) ft/sec (effluent) or two (2) ft/sec (raw) using a C Factor of 150 (effluent) or 140 (raw) at the minimum pumping rate (peak inflow). Fittings and valves shall be of compatible corrosion resistant material.

(2) A threaded union, flange, or similar disconnect device shall be provided in each pump discharge line. The pump(s) shall be easily removable at ground surface without requiring entrance into the tank. Valves shall also be readily accessible from the ground surface. Duplex pump systems shall be equipped with a separate pit or box for the placement and operation of valves.

(3) A shutoff valve (eg., gate valve) and a check valve shall be located on the discharge line from each pump. The check valve shall be placed between the pump and the shutoff valve.



(4) A three-sixteenths (3/16) inch anti-siphon hole(s) shall be placed between the pump(s) and the check valve(s) when the discharge elevation of the distribution system is below the inlet to the pump tank.

(5) In cases where the force main must be installed over undulating terrain, automatic air relief valves shall be placed at high points in the line to prevent air locking.

(6) The force main effluent shall discharge into a separate discharge box or distribution manifold before entering either a septic tank or a soil wastewater infiltration trench. The flow shall be directed to the bottom of the box thru a PVC elbow, or into a distribution manifold at an angle of ninety (90) degrees to the septic tank or first wastewater infiltration trench.

#### 600.5 Pumps, Control Devices and Electrical Connections

(1) Pumps shall be listed by Underwriter's Laboratory or an equivalent third party testing and listing agency, and shall be specifically manufactured for use with domestic wastewater.

(2) Sealed mercury control floats or similar devices designed for detecting liquid levels in septic tank effluent shall be provided to control pump cycles. A separate level sensing device shall be provided to activate an audible and visible high water alarm. Pump-off levels shall be set to keep the pump submerged at all times.

(3) Pump and control circuits shall be provided with manual circuit disconnects within a watertight, corrosion resistant, outside enclosure (NEMA 4X or equivalent) adjacent to the pump tank, securely mounted at least twelve (12) in. above finished grade, unless installed within a weather-tight building. Alarm circuits shall be supplied ahead of any pump overload or short circuit protective devices. The pump(s) shall be manually operable without requiring special tools or entrance into the tank for testing purposes. Conductors shall be conveyed to the disconnect enclosure through water proof, gas proof, and corrosion resistant conduit(s), with no splices or junction boxes provided inside the tank. Wire grips, duct seal, or other suitable material shall be used to seal around wire and wire conduit openings inside the pump tank and disconnect enclosure.

(4) For systems requiring duplex pumps, each pump shall operate in a lead-lag sequence and be on an alternating cycle. A control panel shall be provided which shall include short circuit protection for each pump and for the control system, independent disconnects, automatic pump sequencer, hands-off-automatic (H-O-A) switches, run lights, and elapsed time counters for each pump.

#### 600.6 FINAL INSPECTION AND APPROVAL

(1) Before or during final inspection, the property owner or agent shall provide literature, including a pump curve, describing the specific pump installed. The inspector shall evaluate the system in accordance with this Standard, and shall confirm that all items, including the minimum pump capacity specified on SCDHEC Form 1739, have been satisfied.

(2) Prior to final approval, the installer or electrician shall provide the Department with written documentation verifying that pump system electrical connections were made in accordance with all applicable codes. The Department may require testing of the pump system, demonstration of watertight integrity, or any other procedure deemed necessary to confirm the acceptability of the installation.

#### 600.7 Raw Sewage Pump Stations

(1) In those cases where it is necessary to pump raw sewage from a residence or facility to an onsite wastewater system, the pump station shall meet all applicable portions of this Standard and R. 61-67, Standards for Wastewater Facility Construction.

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(2) Adherence to the pump manufacturer's recommendations shall also be a major consideration with such systems.

### 700 APPENDIX T - MINIMUM DESIGN STANDARDS FOR TANK CONSTRUCTION

#### 700.1 INTRODUCTION

The following standards describing tank designs intended to be utilized for septic tanks, grease traps, or pump chambers for onsite wastewater disposal systems have been adopted in an effort to assure a quality product of sufficient strength and resistance, capable of fulfilling its intended purpose.

#### 700.2 DESIGN APPROVAL

(1) No person shall manufacture tanks intended to be utilized for septic tanks, grease traps, or pump chambers for onsite wastewater disposal systems without receiving approval from the Department. All manufactured tanks must receive approval of design and reinforcement methods prior to manufacturing.

(2) Any person desiring to manufacture tanks shall make written application on forms provided by the Department. Such application shall include the name and address, the location of the facility, tank capacity and design information.

(3) Prior to approval, the Department shall review the tank design, reinforcement and manufacturing methods to determine compliance.

(4) The Department shall approve plans for manufactured tanks to insure compliance with the South Carolina Minimum Design Standards for Tank Construction.

(5) The Department shall approve plans for fabricated tanks, other than those for precast reinforced concrete tanks, on an individual basis. Fabricated tanks shall meet the requirements of precast reinforced concrete tanks to provide equivalent effectiveness.

(6) The Department shall issue an approval to the tank manufacturer if the tank design, reinforcement and manufacturing method complies with the South Carolina Minimum Design Standards for Tank Construction. Tank manufacturing approvals are not transferable. When a change of ownership occurs, the new owner shall make written application on forms provided by the Department.

(7) The Department shall revoke approval to manufacture tanks for onsite wastewater disposal systems if the tank manufacturer fails to comply with the South Carolina Minimum Design Standards for Tank Construction.

#### 700.3 GENERAL

(1) Septic tanks and grease traps shall be manufactured as single compartment or partitioned tanks.

(2) If septic tanks and grease traps are manufactured with a partition so that the tank contains two (2) compartments, the inlet compartment of the tank shall contain two-thirds (2/3) of the overall capacity and the outlet compartment shall contain one-third (1/3) of the overall capacity. The top of the partition shall terminate two inches below the bottom side of the tank top in order to leave space for air or gas passage between compartments. The top and bottom halves of the partition shall be constructed in such manner as to leave a four (4) inch water passage at the vertical mid point of the partition wall for the full width of the tank.

(3) The minimum liquid capacity requirements shall be met by the use of a single septic tank or two or more tanks installed in series. Septic tanks joined in series shall be interconnected by an upper effluent pipe(s) with a minimum diameter of four (4) inches and a lower sludge pipe(s) with a minimum diameter of twelve (12) inches. The upper connection(s) shall be installed level from tank to tank, and the lower sludge pipe connection(s) shall be installed level and shall be placed twelve (12) inches above the bottoms of the tanks. The lower sludge pipe connection(s) can be eliminated if the first tank in series contains at least two-thirds of the total required liquid capacity. There shall be no more than two (2) inches of fall from the inlet invert of the first tank to the outlet invert of the last tank in series.

(4) It is required that all pump chambers function as a single compartment tank. If a two (2) compartment tank is used, at least two (2) six (6) inch diameter holes or equivalent, must be provided in the partition wall six (6) inches from the tank bottom.

(5) The septic tank and grease trap tank length shall be at least two (2) but not more than three (3) times the width.

(6) The liquid depth shall not be less than four (4) feet.

(7) A minimum of nine (9) inches of freeboard shall be provided in all tanks, unless otherwise approved by the Department.

(8) Useable liquid capacity for septic tanks or grease traps shall not be less than one thousand (1000) gallons.

(9) The pump tank shall have sufficient capacity to accommodate all level control and alarm switches; to keep the pump(s) totally submersed in liquid at all times; and to provide the required dosing volume and minimum pump run time. It is strongly recommended that pump tank capacities be as large as possible in order to provide emergency storage in the event of pump or power failure.

(10) There shall be a minimum of two (2) openings in the tank wall, located at inlet and outlet ends of the tank. The knockouts for the inlet and outlet openings of pre-cast tanks shall have a concrete thickness of not less than one (1) inch in the tank wall. The openings shall allow for a minimum of four (4) inch pipe or a maximum of six (6) inch pipe. No openings shall be permitted below the tank liquid level.

(11) The inlet and outlet for septic tanks and grease traps shall be a cast-in-place concrete tee, a polyvinyl chloride (PVC) tee, or a polyethylene (PE) tee, made of not less than Schedule 40 pipe or equivalent fittings and material. The cast-in-place concrete tees shall have a minimum thickness of not less than two (2) inches. The invert of the outlet shall be at least two (2) inches lower in elevation than the invert of the inlet. The inlet and outlet tees shall extend above liquid depth to approximately one (1) inch from the top of the tank to allow venting between tank compartments and multiple tank configurations.

(12) The inlet tee for septic tanks and grease traps shall extend sixteen (16) inches below the liquid level.

(13) The outlet tee for a septic tank shall extend eighteen (18) inches below the liquid level and the outlet tee for a grease trap shall extend between six (6) and twelve (12) inches above the tank bottom.

(14) The inlet, outlet and wiring conduit openings of all tanks must utilize a resilient, watertight, non-corrosive connective sleeve. The use of grout is prohibited.

(15) Access to each tank or compartment shall be provided by an opening located above the inlet and outlet with an inside dimension of at least eighteen (18) inches square (18 x 18) or in diameter, with removable tank access lids.

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(16) Concrete tank access lids shall be equipped with steel lift rings at least three-eighths (3/8) inch diameter, or by an alternative method approved by the Department.

(17) Should risers or manholes be utilized to allow access into septic tanks, grease traps or pump chambers, the risers/manholes cover shall be constructed to prevent the release of odors, entry of vectors and water. Grade level riser/manhole covers shall be secured by bolts or locking mechanisms, or have sufficient weight to prevent unauthorized access. The ground shall slope away from any access extended to grade level.

(18) Risers/manholes shall be sealed to the tank by using bituminous mastic, butyl rubber, or other pliable sealant that is waterproof, corrosion-resistant, and approved for use in tank construction. The sealant shall have a minimum size of one (1) inch diameter or equivalent. The joint shall be smooth, intact, and free of all deleterious substances before sealing.

(19) After curing, all multi-piece tanks shall be joined and sealed at the joints by using a bituminous mastic, butyl rubber, or other pliable sealant that is waterproof, corrosion-resistant, and approved for use in tank construction. The sealant shall have a minimum size of one (1) inch diameter or equivalent. The joint shall be smooth, intact, and free of all deleterious substances before sealing. The use of grout is prohibited.

(20) All tanks must pass the ASTM C-1227 Standard for watertight testing. The Department will choose tanks at random for testing. Tanks will be approved for use in South Carolina after the Department ascertains that the standard is met. After joining, tanks manufactured in multiple sections shall be plastered along the section joints with hydraulic cement or other waterproofing sealant. Other methods of waterproofing tanks may be used as specifically approved in the plans and specifications for the tank. Prior to backfilling, the local health department shall make a finding that multiple section tanks are watertight if a soil wetness condition is present within five feet of the elevation of the top of the tank. Any tank found to be improperly sealed, having cracks or holes, which will allow for water infiltration or discharge of sewage from the tank bottom, walls or top, will not be approved for use.

(21) Tank manufacturers must have equipment and capabilities for portion control to maintain constant mixture formulation ratios and provide for systematic inspection of finished products to insure compliance with the minimum tank construction and design standards.

(22) The concrete mix used for concrete tank components must be formulated to yield a minimum twenty-eight (28) day compressive strength of four thousand (4,000) pounds per square inch (psi).

(23) The aggregate size utilized in the concrete mix shall not exceed one-third (1/3) of the wall thickness. Suitable aggregates include sand particle sizes from a fine to one-fourth (1/4) inch gravel or crushed stone. Granite dust or fine screenings from a crusher operation may be used in lieu of sand.

(24) An identifying seal must be cast or permanently affixed by an approved method from the Department on the outlet tank wall within six (6) inches of the top. The identifying seal shall identify the manufacturer and the liquid capacity of the tank. The tank's cast date shall be located on the identifying seal or imprinted on the top of the tank within six (6) inches from outlet tank wall near the identifying seal. The lettering on the identifying seal or date imprinted on the top of the tank shall be no more than six (6) inches in height.

(25) The tank manufacturer shall guarantee all tanks in writing for two (2) years against failure due to poor workmanship and materials.

(26) Changes in approved tank design, construction, and alternative reinforcing methods will not be allowed without prior approval from the Department.

## 700.4 PRE-CAST CONCRETE NON-FIBER REINFORCED SEPTIC TANKS AND GREASE TRAPS

(1) The tank walls and bottom shall be reinforced with six inch by six inch (6 x 6) ten (10) gauge wire mesh.

(2) Tank tops shall be reinforced with six by six inch (6 x 6) ten (10) gauge wire mesh, a minimum of five (5) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls beginning at the center spaced twelve (12) inches apart, and four (4) sections of three-eighths (3/8) inch diameter steel reinforcing bars placed diagonally from the corners to the center of the tank. The length of the perpendicular reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall. The length of the four (4) diagonal steel reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall and six (6) inches beyond the closest perpendicular steel reinforcing bar.

(3) If a septic tank or grease trap is manufactured with a partition, the tank partition (both halves) shall be reinforced with six by six inch (6 x 6) ten (10) gauge wire mesh. The reinforcing wire shall be bent to form an angle of ninety (90) degrees on the ends in order to form a leg not less than four (4) inches long. When the wire is placed in the mold the four-inch legs shall lay parallel with the sidewall wire and adjacent to it.

(4) The tank walls and bottom thickness shall be at least two and one-half (2½) inches, and top thickness shall be at least three (3) inches.

(5) All reinforcing wire and rods must be covered by at least one-half (1/2) inch of concrete.

(6) An acceptable vibration method shall be employed in the construction of the tank to prevent voids in the tank walls, bottom and top.

## 700.5 PRE-CAST CONCRETE FIBER REINFORCED SEPTIC TANKS AND GREASE TRAPS

(1) Tank tops shall be reinforced with a minimum of five (5) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls beginning at the center spaced twelve (12) inches apart, and four (4) sections of three-eighths (3/8) inch diameter steel reinforcing bars placed diagonally from the corners to the center of the tank. The length of the perpendicular reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall. The length of the four (4) diagonal steel reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall and six (6) inches beyond the closest perpendicular steel reinforcing bar.

(2) Tank bottoms shall be reinforced with a minimum of seven (7) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls beginning at the center spaced twelve (12) inches apart. The length of the perpendicular reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall.

(3) If a septic tank or grease trap is manufactured with a partition, the tank partition (both halves) shall be reinforced with six by six inch (6 x 6) ten (10) gauge wire mesh. The reinforcing wire shall be bent to form an angle of ninety (90) degrees on the ends in order to form a leg not less than four (4) inches long. When the wire is placed in the mold the four-inch legs shall lay parallel with the sidewall wire and adjacent to it.

(4) The tank perimeter walls shall be reinforced with three-eighths (3/8) diameter steel reinforcing bars located one (1) inch from the tank's top and bottom section seams.

(5) The tank walls and bottom thickness shall be at least two and one-half (2½) inches, and top thickness shall be at least three (3) inches.

(6) All reinforcing wire and rods must be covered by at least one-half (1/2) inch of concrete.

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(7) Fiber products used with this reinforcement design must be added during the mixing process in order to achieve even distribution throughout the concrete mixture.

(8) Fiber length must range from at least one (1) to no more than two (2) inches.

(9) The fiber must be specifically manufactured for use as a concrete secondary reinforcement and be a polypropylene fibrillated (two-dimensional fiber mesh network) material.

(10) An acceptable vibration method shall be employed in the construction of the tank to prevent voids in the tank walls, bottom and top.

### 700.6 CONCRETE BLOCK SEPTIC TANKS AND GREASE TRAPS

(1) The tank walls and partition thickness shall be at least eight (8) inches and the top cover slabs thickness shall be at least four (4) inches.

(2) The tank bottom shall be a single pour concrete slab to a depth of at least four (4) inches within the first block course.

(3) If a septic tank or grease trap is manufactured with a partition, the tank walls and partition shall be constructed of solid sixteen inch by eight inch by eight inch (16 x 8 x 8) concrete blocks. The use of hollow blocks is prohibited.

(4) All joints between concrete blocks shall be mortared using masonry cement mortar or equivalent. The joints shall have a nominal thickness of three-eighths (3/8) inch.

(5) The upper partition wall may be supported by the use of two inch by four inch by eight (2 x 4 x 8) inch bricks (or equivalent support material) standing on edge located at the block seams of the upper partition wall.

(6) The top cover slabs shall be constructed such that the individual slabs will not exceed two (2) feet in width and the length will be sufficient to extend to the outside tank width with a minimum slab thickness of four (4) inches.

(7) The individual top cover slabs shall be reinforced with a minimum of two (2) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls spaced twelve (12) inches apart from the center. The length of the perpendicular reinforcing bars shall be of sufficient length to extend the full length of the slab.

(8) The end cover slabs shall be constructed such that the individual slabs will not exceed three (3) feet in width and the length will be sufficient to extend to the outside tank width with a minimum slab thickness of four (4) inches.

(9) The end cover slabs shall be cast to allow access to each tank or compartment by providing an opening located above the inlet and outlet tee with an inside dimension of eighteen (18) inches square (18 x 18) or in diameter with removable tank access lids.

(10) The individual end cover slabs shall be reinforced with two (2) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls spaced twelve (12) inches apart from the center and two (2) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls spaced sixteen (16) inches apart from the center. The length of the perpendicular reinforcing bars shall be of sufficient length to extend the full length of the slab.

(11) The top and end cover slab seams shall be sealed to the tank walls and at all joints by using a bituminous mastic, butyl rubber, or other pliable sealant that is waterproof, corrosion-resistant, and approved for use in septic tanks. The sealant shall have a minimum size of one (1) inch diameter or equivalent. The use of grout is prohibited.

(12) The tank top and end cover slabs shall be equipped with steel lift handles at least one half (1/2) inch diameter, or by an alternative method approved by the Department.

(13) All reinforcing rods must be covered by at least one-half (1/2) inch of concrete.

(14) The interior of the tank (walls and bottom) shall be plastered with a waterproofing cement compound.

(15) An acceptable vibration method shall be employed in the construction of the tank to prevent voids in the tank access lids, tank bottom, and top and end slabs.

#### 700.7 PRE-CAST CONCRETE NON-FIBER REINFORCED PUMP CHAMBERS

(1) The tank walls and bottom shall be reinforced with six inch by six inch (6 x 6) ten (10) gauge wire mesh.

(2) Tank tops shall be reinforced with six by six inch (6 x 6) ten (10) gauge wire mesh, a minimum of five (5) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls beginning at the center spaced twelve (12) inches apart, and four (4) sections of three-eighths (3/8) inch diameter steel reinforcing bars placed diagonally from the corners to the center of the tank. The length of the perpendicular reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall. The length of the four (4) diagonal steel reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall and six (6) inches beyond the closest perpendicular steel reinforcing bar.

(3) The tank walls and bottom thickness shall be at least two and one-half (2½) inches, and top thickness shall be at least three (3) inches.

(4) All reinforcing wire and rods must be covered by at least one-half (1/2) inch of concrete.

(5) An acceptable vibration method shall be employed in the construction of the tank to prevent voids in the tank walls, bottom and top.

#### 700.8 PRE-CAST CONCRETE FIBER REINFORCED PUMP CHAMBERS

(1) Tank tops shall be reinforced with a minimum of five (5) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls beginning at the center spaced twelve (12) inches apart, and four (4) sections of three-eighths (3/8) inch diameter steel reinforcing bars placed diagonally from the corners to the center of the tank. The length of the perpendicular reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall. The length of the four (4) diagonal steel reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall and six (6) inches beyond the closest perpendicular steel reinforcing bar.

(2) Tank bottoms shall be reinforced with a minimum of seven (7) sections of three-eighths (3/8) inch diameter steel reinforcing bars oriented perpendicular to the tank sidewalls beginning at the center spaced twelve (12) inches apart. The length of the perpendicular reinforcing bars shall be of sufficient length to extend two (2) inches into the sidewall.

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(3) The tank perimeter walls shall be reinforced with three-eighths (3/8) inch diameter steel reinforcing bars located one (1) inch from the tank's top and bottom section seams.

(4) The tank walls and bottom thickness shall be at least two and one-half (2½) inches, and top thickness shall be at least three (3) inches.

(5) All reinforcing wire and rods must be covered by at least one-half (1/2) inch of concrete.

(6) Fiber products used with this reinforcement design must be added during the mixing process in order to achieve even distribution throughout the concrete mixture.

(7) Fiber length must range from at least one (1) to no more than two (2) inches.

(8) The fiber must be specifically manufactured for use as a concrete secondary reinforcement and be a polypropylene fibrillated (two-dimensional fiber mesh network) material.

(9) An acceptable vibration method shall be employed in the construction of the tank to prevent voids in the tank walls, bottom and top.

## 800 APPENDIX U -FIBERGLASS REINFORCED PLASTIC TANKS STANDARD

Standards describing fiberglass reinforced plastic septic tanks have been adopted assure a quality product of sufficient strength and resistance, capable of fulfilling its intended purpose. Many of these standards were derived from NBS Voluntary Product Standard PS 15-69, which covers custom contact-molded reinforced polyester chemical resistant process equipment.

### 800.1 GENERAL REQUIREMENTS

The following general requirements are applicable to fiberglass reinforced plastic septic tanks as defined herein, and approved design standards and structural properties of the same shall be not less than those stated herein.

#### (1) Material

Resins and sealants used in the tank manufacturing process shall be capable of effectively resisting corrosive influences of liquid components of sewage, gases generated by the digestion of sewage, and soil burial. Materials used shall be formulated to withstand vibration, shock, normal household chemicals, earth and hydrostatic pressure both when full and empty. Not less than thirty (30) percent of the total weight of the tank shall be fiberglass reinforcement. For tanks not exceeding fifteen hundred (1500) gallons liquid capacity, the minimum wall thickness shall be three-sixteenths (3/16) inch, provided however, that isolated small spots may be as thin as eighty (80) percent of the minimum.

#### (2) Inner Coating

Internal surfaces shall be coated with an appropriate gel coating to provide a smooth, pore-free, watertight surface for fiberglass reinforced plastic parts.

#### (3) Physical Properties

Tanks shall be so constructed that all parts of the tank shall meet the following requirements:



(a) Ultimate Tensile Strength (Minimum) - 9,000 psi when tested in accordance with ASTM D 638-71a, Standard Method of Test for Tensile Properties of Plastics.

(b) Flexural Strength (Minimum) - 16,000 psi when tested in accordance with ASTM D 790-71, Standard Method of Test for Flexural Properties of Plastics.

(c) Flexural Modulus of Elasticity Tangent (Minimum) - 700,000 psi when tested in accordance with ASTM D 790-71, Standard Method of Test for Flexural Properties of Plastics.

(4) Watertight Integrity

Tanks shall be so constructed as to be watertight for the designed life of the tank. Lids or covers shall be sufficiently tight when installed to preclude the entrance of surface or ground water into the tank.

(5) Longevity

Proof from an independent testing laboratory shall be submitted substantiating a minimum life expectancy of twenty years service for the intended use of the tank and appurtenant components such as necessary sealants, connective fastenings, resins, etc.

(6) Safety

As a safety measure, provision shall be made in the construction of septic tank lids or covers to preclude unauthorized entry or removal when the use of the tank necessitates positioning of access openings at or above ground level.

(7) Workmanship

Tanks shall be of uniform thickness and free from defects that may affect their serviceability or durability. Completed tanks are to present a smooth inside finish free of spills, pits, and honeycombs. Plant quality control shall be sufficient to maintain a high degree of uniformity in tank quality.

**800.2 SPECIFIC REQUIREMENTS**

Specific requirements for design and construction shall be not less than those specified herein, and shall be in conformity with recognized National Standards for design and construction and in accordance with this regulation.

**800.3 CAPACITY AND DESIGN LIMITS**

(1) Dimensions

(a) The inside length of a horizontal cylindrical tank shall be at least two (2) but not more than three (3) times the width.

(b) The uniform liquid depth shall not be less than four (4) feet.

(c) At least fifteen (15) percent of the total volume of the tank shall be above the liquid level.

(d) If tanks of other shapes are proposed, specifications must be submitted to the Division of Onsite Wastewater Management for approval.

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### (2) Inlet

(a) Provisions shall be made for the building sewer to enter the center of one end of the septic tank two (2) inches above the normal liquid level of the tank.

(b) A tee shall be constructed as an integral part of the tank to receive the building sewer, or as an alternative, an integrally constructed baffle may be used.

(c) If baffles are used, suitable integrally fitted sleeves or collars shall be provided in the inlet openings of the tank to provide surface areas sufficient to insure capability of watertight bonding between the tank and the inlet sewer.

(d) If the tee or baffle is constructed of plastic material, it shall meet NSF Standard #14 for drain, waste, and vent system application.

(e) If fiberglass reinforced plastic is used, it shall be of the same constituency as material of which the tank is constructed.

(f) The inlet tee or baffle shall extend sixteen (16) inches below the designed liquid level and be placed and secured in a vertical position so as to be watertight and preclude dislodgement during installation, operation or maintenance activities.

### (3) Outlet

(a) Provisions shall be made for the outlet sewer to receive the discharge from the tank by providing an opening in the center of the end of the tank opposite the inlet, the invert elevation of which shall be at the liquid level of the tank.

(b) A tee shall be constructed as an integral part of the tank to connect to the outlet sewer, or as an alternative, an integrally constructed baffle may be used.

(c) If baffles are used, suitable integrally fitted sleeves or collars shall be provided in the outlet opening of the tank to provide surface areas sufficient to insure capability of water tight bonding between the tank and the outlet sewer.

(d) If the tee or baffle is constructed of plastic material, it shall meet NSF Standard #14 for drain, waste, and vent system application.

(e) If fiberglass reinforced plastic is used, it shall be of the same constituency as material of which the tank is constructed.

(f) The outlet tee or baffle shall extend eighteen inches below the design liquid level and be placed and secured in a vertical position so as to be watertight and preclude dislodgement during installation, operation or maintenance activities.

(g) A one (1) inch opening between the top of the inlet tee and top of the tank shall be provided to permit free passage of gas back to the house vent.

### (4) Access Openings

Openings in the top of the septic tank shall be provided over the inlet and outlet tees or baffles with sufficient area to enable maintenance service to such tees or baffles.

## (5) Identifying Markings

Fiberglass septic tanks shall be provided with a suitable legend, cast or stamped into the wall at the outlet end, and within six inches of the top of the tank, identifying the manufacturer, and indicating the liquid capacity of the tank in gallons.

**Fiscal Impact Statement:**

The Department estimates there will be no new costs imposed on the State or its political subdivisions by this regulation.

**Statement of Need and Reasonableness:**

The Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11):

## DESCRIPTION OF REGULATION:

**Purpose:** The amendments include updates in nomenclature and technology, clarification of site requirements and system requirements, and changing the title of the regulation. Amendments also incorporate construction standards into the regulation that heretofore had been defined in agency policy.

Language in the regulation has been updated to correlate with changes in the administrative appeals process pursuant to 2006 S.C. Acts 387.

**Legal Authority:** The legal authority for R.61-56 is Sections 44-1-140 (11) and 44-1-150 and Sections 48-1-10 to -350, S.C. Code of Laws.

**Plan for Implementation:** The amendments will take effect upon approval the General Assembly, and publication in the State Register. The regulated community will be provided copies of the regulation.

## DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

R.61-56 protects the health and environment of South Carolina's citizens by ensuring that septic tank systems are properly located, designed and installed. The regulation sets forth the requirements for system sites and the standards for construction and installation. The Regulation was last amended on June 27, 1986. Since the last revision, there have been numerous changes in the technologies of design and installation of onsite wastewater systems. It is necessary to strike the text of the existing regulation in total and rewrite the regulation in its entirety to incorporate the extensive changes. The amendments include updates in nomenclature and technology, clarification of site requirements and system requirements, and changing the title of the regulation. Amendments also incorporate construction standards into the regulation that heretofore had been defined in agency policy. Language in the regulation has been updated to correlate with changes in the administrative appeals process pursuant to 2006 S.C. Acts 387.

## DETERMINATION OF COSTS AND BENEFITS:

There are no anticipated new costs associated with the implementation of this regulation. There will be a benefit to South Carolina by ensuring that the regulation, and the Department, continue to protect the health and environment of South Carolina's citizens by ensuring that septic tank systems are properly located, designed and installed.

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### UNCERTAINTIES OF ESTIMATES:

None.

### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

The regulation ensures that the health and environment of South Carolina's citizens by ensuring that septic tank systems are properly located, designed and installed.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

Not implementing the regulation will prevent continued assurance that septic tank systems are properly located, designed and installed; this could have a detrimental effect on the health of South Carolina's citizens and visitors.

### Statement of Rationale:

The determination to revise this regulation was in response to changes in nomenclature and technology, the need for clarification of site requirements and system requirements, and the need to incorporate construction standards into the regulation that heretofore had been defined in agency policy.

Resubmitted: January 8, 2008

Resubmitted: April 16, 2008

Document No. 3113

## DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

### CHAPTER 61

Statutory Authority: 1976 Code Sections 44-96-10 et seq.

#### 61-107. Solid Waste Management

1. Proposed Repeal of Sections:

61-107.11 Solid Waste Management: Construction, Demolition, and Land-clearing Debris Landfills;

61-107.13 Solid Waste Management: Municipal Solid Waste Incinerator Ash Landfills;

61-107.16 Solid Waste Management: Industrial Solid Waste Landfills; and,

61-107.258 Solid Waste Management: Municipal Solid Waste Landfills.

2. Propose New Section 61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill.

### Synopsis:

This proposed amendment of R.61-107 adds a new section (R.61-107.19) that addresses all solid waste landfills and structural fill activity and repeals the four existing sections (R. 61-107.11, R.61-107.13, R.61-107.16, and R.61-107.258) that address solid waste landfills. It updates, streamlines and clarifies requirements addressing disposal of solid waste, provides better protection for the environment and public health, facilitates public notification and input in the early stages of the permitting process and resolves issues prior to large financial expenditures. The new proposed section provides a viable mechanism for structural fill activities using a suitable waste stream, thus helping alleviate open dumping. It will broaden disposal options by changing the way proper disposal is determined by focusing on the waste stream's chemical and physical properties instead of the source of generation.

The proposed new R.61-107.19 includes changes to reflect updates to Title 40 of the Code of Federal Regulations, Part 258 (40CFR258) Criteria for Municipal Solid Waste Landfills, e.g., location restrictions for airport safety; research, development, and demonstration permits; leachate recirculation; and, updates to the Appendix V. In addition, the new section will include revisions to reflect changes in an amendment of S.C. Code Ann. Section 44-96-10, et seq. (Solid Waste Policy and Management Act), in 2000. These changes include deletion of a requirement for disposal of municipal solid waste incinerator ash in a monofill, and the addition of administratively complete language relating to the Department's review of permit applications. Text moved from Regulation sections 61-107.11, 61-107.13, 61-107.16, and 61-107.258 incorporates editorial changes and corrections for clarity, grammar, punctuation, typographical errors, references, and language style.

**Section-by Section Discussion of Changes Made to New Section R.61-107.19 pursuant to the Request of the Senate Medical Affairs Committee by Letter dated March 25, 2008:**

This regulation was withdrawn and resubmitted at the request of the Senate Medical Affairs Committee pursuant to letter dated March 25, 2008, to amend new Section R.61-107.19 as follows:

Part I

Section D.2.a.(1)

In the first sentence after - "Within" delete: "180 days prior to the submission of a permit application" and replace with: "15 days of notification from the Department that all requests for need and consistency determinations as outlined in Section D.1.a. above have been submitted"...

Delete: "...expanded" and replace with "expanding".

Section D.2.a.(2)(f)

After - "A statement that" add: "a request has been submitted to"

After - "...the Department" delete: "has issued a final written" and replace with "for a"

After - "...61-107.17 and" delete: "that the Department has determined" and replace with "for a determination of".

Section D.2.a.(2)(g)

After - "A statement that" add: "a request has been submitted to"

After - "...the Department" delete: "has issued a final written" and replace with "for a"

Section D.2.a.(2)(h)

After - "A statement that" add: "a request has been submitted to"

After - "...the Department" delete: "has issued a final written" and replace with "for a"

Section D.2.a.(2)(i)

After - "A statement that" add: "a request has been submitted to"

After - "...the Department" delete: "has issued a final written" and replace with "for a"

After - "...this Regulation for" delete: "class" and replace with "Class"

Section D.2.a.(2)(k)

After - "of inquires," add: "and placement of name on the Department's mailing list for future decisions."

Section D.2.a.(3)

At the end of the sentence, delete: "within the prior 180-day period."

Section D.2.b.

Add a section for clarification of the public notice process re: Notice of Draft Determinations of Need and Consistency

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### Section D.2.b.

Renumber old section D.2.b : “D.2.c.”

### Section D.2.c.

Renumber old section D.2.c as: “D.2.d.”

### Section D.2.d.

Renumber old section D.2.d as: “D.2.e.”

After - “area of the proposed landfill and” add: “will be sent to affected persons who have asked to be notified. The notice will”

### Section D.2.e.

Renumber old section D.2.e. as: “D.2.f”

At the end, add: “for Draft Permits”

### Section D.2.f.

Renumber old section D.2.f. as: “D.2.g”

In the third sentence, after “to the applicant,” delete: “,” and replace with a “.”, and begin a new sentence by adding: “Notice of the Department’s decision will be sent by regular mail, unless certified mail is requested, to”

## Part IV.

### Section A.4.

In the second sentence after “(e.g., pesticides),” add: “or”

In the end of the second sentence, delete: “, or lead-based paint”

### Section H.1.a.

Delete the last sentence that reads: “The Department will notify by certified mail, return receipt requested, the applicant and any affected persons who request to be notified of the result of the needs determination and maximum yearly disposal rate pursuant to Regulation 61-107.17.”

### Section H.1.b.

Delete the last sentence that reads: “The Department will notify by certified mail, return receipt requested, the applicant and any affected persons who request to be notified of its consistency determinations.”

### Section H.1.b.(4)

Delete the last sentence that reads: “The Department will notify by certified mail, return receipt requested, the applicant and any other affected person who requests to be notified of its determination of compliance with this buffer requirement.”

### Section H.1.c.

Add a new section subitem to read: “ c. If the Department’s final determination of need is terminated, pursuant to R.61-107.17, all other determinations under Section H.1.a. and b. above will be void.”

### Section H.4.b.(7)

Delete the following item: “(g) Procedures for preventing the disposal of waste painted with lead-based paint, which may include obtaining and maintaining documentation from the waste generator;”

Renumber items H.4.b(7)(h) through (m) as items (g) through (l).

## Part V.

## Subpart H.1.a.

Delete the last sentence that reads: “The Department will notify by certified mail, return receipt requested, the applicant and any other affected persons who request to be notified of the result of the needs determination and the maximum yearly disposal rate pursuant to Regulation 61.107.17.”

## Subpart H.1.b.

Delete the last sentence that reads: “ The Department will notify by certified mail, return receipt requested, the applicant and any affected persons who request to be notified of its consistency determinations.”

## Subpart H.1.c.

Add a section subitem to read: “If the Department’s final determination of need is terminated, pursuant to R.61-107.17, all other determinations under Section H.1.a. and b. above will be void.”

Renumber old section H.1.c. as H.1.d.

**Discussion of Change Made to New Section R.61-107.19 pursuant  
to the Request of the House Agriculture, Natural Resources and  
Environmental Affairs Committee by Letter dated May 29, 2007:**

This regulation was withdrawn and resubmitted at the request of the House Agricultural, Nature Resources and Environmental Affairs Committee pursuant to letter dated May 29, 2007, to amend new Section R.61-107.19 at Part I, Section D.1.b. by deleting the following sentence: “For those determinations from Part I.D.1.a. that have yet to be made upon the effective date of this regulation, the Department shall complete the required determinations based upon the laws, ordinances, solid waste management plans, and surrounding land uses at the time the Department first reviewed the proposed landfill or landfill expansion and made one of the determinations now listed under Part I.D.1.a.”

**Section-by-Section Discussion of Amendment of R.61-107 as submitted to  
the General Assembly for review by the Department of Health and  
Environmental Control on April 17, 2007:**

Part I. General Requirements. This Part contains requirements that pertain to two or more types of disposal facilities.

Section A. Applicability. This section addresses the applicability and scope of this regulation and defines disposal options. The emphasis for determining proper disposal is based on the chemical/physical properties of the waste stream. This is a change from existing regulations which rely on the source of generation of the waste. Compliance for existing landfills is addressed.

This section identifies three types of landfills, i.e., Class One, Class Two, and Class Three, which will replace existing types of landfills. The Department will automatically convert, as an administrative modification, all existing landfill permits to the appropriate Class as outlined herein.

The repeal of existing sections: 61-107.11 Construction, Demolition, and Land-clearing Debris Landfills, 61-107.13 Municipal Solid Waste Incinerator Ash Landfills, 61-107.16 Industrial Solid Waste Landfills, and 61-107.258 Municipal Solid Waste Landfills is addressed in this section.

Structural fill activities are identified in this section. The new text replaces existing text in R.61-107.11 for “Short-term Construction, Demolition and Land-clearing Debris Landfills” and an exemption for structural fill. New requirements should help alleviate open dumping and encourage reuse of specific items that would otherwise require landfilling.

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Section B. Definitions. This section contains applicable definitions from R.61-107.11, R.61-107.13, R.61-107.16, R.61-107.258, 40CFR258, S.C. Code Ann. Section 44-96-10, *et seq.*, and others recommended during the public comment period.

Section C. Waste Characterization. The criteria for determining the proper type of landfill to be used for disposal of a waste stream is outlined in this section. Waste characterization consists of a comprehensive analytical evaluation of the chemical and physical nature of each waste stream. The wastes acceptable for disposal at a Class Two landfill as listed in Appendix I are exempt from the waste characterization process. Class Three landfills adhere to their approved Special Waste Analysis and Implementation Plan.

This language is based on text in R.61-107.16 SWM: Industrial Solid Waste Landfills. New text is added regarding existing landfill compliance with the requirements of this new 61-107 Section. If waste characterization test results indicate a reclassification of the landfill is necessary to meet requirements, the Department will require the permittee to submit a permit application for appropriate modification of the landfill.

Section D. Permit Application Process. This new section establishes requirements for determination of need, consistency with solid waste management plans and local zoning, and public notification and participation regarding initial construction and major modifications of Class Two and Class Three landfills. The applicant is responsible for publication of the first two notices. Publication of a “notice of intent to file a permit application” is added to the public notification process. This new step will make the public aware of the proposed landfill activity in the early stages of the process. It will also allow the applicant to complete determination of need, consistency determinations, and site suitability studies before making large expenditures on engineering plans and specifications.

New text is added that addresses the review of draft permits, public hearings, and the Department’s decision on final permit applications.

Section E. Financial Assurance Criteria. All non-commercial landfills, as well as commercial landfills, are required to demonstrate financial assurance with the exception of State and Federal Government owned facilities and Class One and Class Two landfills owned by local government or a region comprised of local governments. Text from R.61-107.13, R.61-107.16, and R.61-107.258 is used with the exception of the state assumption of responsibility mechanism. New mechanisms for Certificates of Deposit, Corporate Financial Test, and Local Government Financial Test are added. Also new text addressing “Incapacity of Permittee or Financial Institution” and “Default by Permittee” are added. Proposed changes include a new requirement for financial assurance for all non-government owned Class One and Class Two landfills.

Section F. Permit Applicant Requirements. Disclosure requirements text from S.C. Code Ann. Section 44-96-300, R.61-107.13, R.61-107.16, and R.61-107.258 is included in this section. New requirements regarding bankruptcy are added, and text from R.61-107.16, and R.61-107.258 addressing transfer of ownership is included, excluding the time-frame for submittal of transfer information to the Department.

Section G. Severability text from R.61-107.11, R.61-107.13, R.61-107.16, and R.61-107.258 is used.

Section H. Violations and Penalties. Text from S.C. Code Ann. Section 44-96-450, R.61-107.11, R.61-107.13, R.61-107.16, and R.61-107.258 is used. New text is added pursuant to a recent revision of the S.C. Code of Laws.

Section I. Appeals. This new section establishes procedures for contesting a decision involving the issuance, denial, renewal, suspension, or revocation of a permit. As a result of recent changes in the S.C. Code of Laws, this new section replaces existing language in the solid waste landfill regulation sections that address appeals. Also, new language defines the process for appealing determinations of need and consistency.



Section J. Variances. This text, taken from R.61-107.16, identifies the procedure for requesting a variance from the regulation requirements.

Part II. This Part addresses short term structural fill activity.

Section A. General Provisions. This new section defines the requirements for short-term structural fill using a limited waste stream, e.g., concrete, block, brick. It is meant to help alleviate open dumping by providing a viable mechanism for structural fill activities using a suitable waste stream. All structural fill activity must be conducted under the Permit-by-rule outlined in the regulation. Structural fill activity is limited to a life of twelve months or less, and to one acre or less in size.

Some of the text is taken from the S.C. Code Ann. Section 44-96-290 and existing R.61-107.11 Small Short-term Construction, Demolition and Land-clearing Debris Landfills. A new requirement for operating under a permit-by-rule that requires registration of all structural fill activity is added. Ambiguous language that addresses a structural fill exemption in the existing R.61-107.11. is deleted. A new exemption for structural fill activity in rights-of-way directly related to road construction under contract with the S.C. Department of Transportation is added. A new statement that structural fill may not provide a sound structural base for building purposes is added.

Section B. Permit-by-rule Registration Requirements. This new section identifies the steps to be taken in order to receive written approval from the Department to operate under the Permit-by-rule for a specific site. Submittal requirements are outlined.

C. Location Restrictions. This section outlines buffers and accessibility requirements and is based on requirements in R.61-107.11 Small, Short-term Construction, Demolition, and Land-clearing Debris Landfills.

D. Design Requirements for Structural Fill. Most of the text in this section is moved from R.61-107.11. with the exception of determining the bottom elevation versus the seasonal high water table. A new requirement states that fill material can not be placed in water.

E. Operating Criteria. This section outlines the operational requirements for all structural fill activity. Text in this section is moved from R.61-107.11 Operation Criteria. A new requirement is added that waste used for structural fill must be reduced in size to less than or equal to one cubic yard pieces with no side exceeding three feet in length.

F. Closure. Closure requirements from R.61-107.11 are used in this section. A new option is added that allows the landowner to begin construction of the foundation of a building project in lieu of seeding requirements.

Part III. This Part addresses Class One landfills operating under a general permit.

A. General Permit. This section outlines an overview of the general permit and uses language from R.61-107.11. A new statement is added that allows permitted mining sites as acceptable locations for Class One landfills.

B. General Provisions. The criteria addressed in the General Permit are outlined in this Section. This text is moved from R.61-107.11, Part II. A new statement is added that requires the applicant to publish a notice of intent to operate under the General Permit in a newspaper and to submit an affidavit of publication to the Department. This requirement is added so the public is informed of proposed activities in the early stages of planning a Class One landfill.

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C. Notice of Intent. This text is moved from R.61-107.11, Part II. and outlines the document applicants must submit to the Department when seeking approval to operate a Class One landfill under the General Permit.

D. Record Keeping and Reporting Requirements. Text from R.61-107.11, Part II. is used. The reporting date is changed to September 1, instead of October 15, and a three-year records retention requirement is added.

Part IV. This Part addresses Class Two Landfills. Portions of text from R.61-107.11, Parts III and IV and R.61-107.16, Class I are used in addition to some new text.

Section A. General Provisions. This section addresses the applicability and general criteria for Class Two landfills. These landfills can accept Appendix I wastes, other wastes that demonstrate similar properties to Appendix I wastes and are approved by the Department on a case-by-case basis, and wastes that test less than 10 times the maximum contaminant level as published in R.61-58.

Section B. Location Restrictions. This section defines buffers and airport safety requirements.

Portions of text are taken from R.61-107.11 and 61-107.16 with revisions for consistency. New text is added to establish the buffer from the fill area to residences, schools, day-care centers, churches, hospitals and publicly owned recreational park areas at the time of publication of the Notice of Intent to File a Permit Application.

New text is added for airport safety. This requirement applies to landfills approved for disposal of animal carcasses. The intent of this new language is to ensure that these landfills do not pose a bird hazard to aircraft.

Section C. Operation Criteria. Portions of text are taken from R.61-107.11 and 61-107.16.

The requirement for storage of unauthorized waste on site is extended from 48-hours in R.61-107.11, Part IV to 30-days. A new item is added requiring removal of putrescible waste from the site within 72-hours of receipt. Text from R.61-107.16 regarding installation of scales is used with exemptions for on-site landfills and landfills that receive less than 10,000 tons/year. This requirement is new for existing landfills that accept only construction, demolition and land-clearing debris.

Under reporting requirements, an item is added that states a yearly survey of the landfill capacity used the previous year and the remaining permitted capacity may be required on a case-by-case basis.

Section D. Design Criteria. Portions of text from R.61-107.11, Part IV are used for this section. The term "estimated" is added regarding the deflected bottom elevation of the landfill. New language is added that the Department will inspect the landfill prior to initial placement of waste in the landfill.

Section E. Groundwater Monitoring and Corrective Action. Currently, groundwater monitoring at some of these facilities is not required. Requirements have been added to the regulation for the installation and semi-annual monitoring of a minimum of four properly located groundwater monitoring wells to evaluate groundwater quality of the entire landfill. Monitoring parameters will consist of metals, and a select list of volatile organic compounds. The facilities are given the option to modify the monitoring parameter list to reflect what may reasonably be expected to leach from the waste streams disposed in the facility. If groundwater contamination is detected, the regulations outline procedures for assessment of the problem and remediation, if deemed necessary. Facilities that cease accepting waste within one year of the effective date of the regulation are exempt from the groundwater monitoring requirements and are required to submit a closure plan.

Section F. Closure and Post-closure Care. For closure requirements, portions of text from R.61-107.11 are used. The existing cap permeability standards in R.61-107.16, Class 1 landfills are deleted and the less stringent cap requirements in R.61-107.11, Part IV are used. A final cover slope of no less than 3% and no greater than 5% is added. A new requirement is added that requires certification of cap closure at a rate of 4 thickness tests per acre.

Post closure requirements are moved from R.61-107.16 and reduced to 20 years. Post closure care is new for existing landfills that accept only construction, demolition, and land-clearing debris landfills.

G. Financial Assurance Criteria. There is a reference to Part I. Section E. for financial assurance requirements.

H. Permit Application Requirements. Text from Regulations 61-107.11, Part IV and 61-107.16 is used.

The section is divided into the different phases of review, e.g., administrative and technical reviews, pursuant to Regulation 61-30, Environmental Protection Fees.

Requirements for determining need, pursuant to Regulation 61-107.17 are added. Text is added to define the parameters for determining annual tonnage limit. A new requirement is added that requires the permit applicant to demonstrate compliance with the 1000 ft. buffer requirement from residences, day-care centers, etc. at the time of submittal of the demonstration. Public notification requirements are addressed.

I. Permit Conditions and Review. Text from Regulation 61-107.16 and S.C. Code Ann. Section 44-96-290(H) is used.

J. Transfer of Ownership. This section references Part I, F.2.b. for requirements.

Part V. This part addresses Class Three landfills. Text from R.61-107.258, R.61-107.13, R.61-107.16 and 40CFR258 is used as well as some new text. Subsections A through F of this Part are codified to coincide with those Subparts in 40CFR258.

Subpart A. General Provisions. This section establishes minimum criteria for Class Three Landfills. These landfills can accept municipal solid waste, industrial solid waste, sewage sludge, nonhazardous municipal solid waste incinerator ash and other nonhazardous waste.

Class Three landfills permitted prior to the effective date of the regulation to accept only industrial waste that test less than 30 times the MCL are exempted from the design criteria.

New language based on 40CFR258 text is added defining conditions regarding research, development, and demonstration (RD and D) permits. It outlines criteria for issuance of RD and D permits for the use of innovative and new technology that vary from the criteria outlined in the regulation that addresses the run-on control systems, liquids restrictions and final cover.

Subpart B. Location Restrictions. Language in this Subpart is based on text from R.61-107.13, R.61-107.16, and R.61-107.258 with some new language.

New language is added regarding the location of new landfills that accept putrescible waste in relation to certain types of airports for safety reasons. This language is based on a prohibition enacted in Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century (Ford Act), and on guidance from the Federal Aviation Administration which administers the Ford Act.

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Requirements for wetlands is changed from existing regulations that reference the Clean Water Act, the Endangered Species Act of 1973, and the Marine Protection, Research, and Sanctuaries Act of 1972 to more concise language that requires compliance with the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the Department's requirements concerning wetlands.

Buffer requirements from existing regulation sections are used with some changes. Compliance with the buffer from any residence, day-care center, church, school, hospital or publicly owned recreational park will be determined prior to publication of the Notice of Intent to File a Permit Application. The 1000 ft. buffer from R.61-107.16 and SC Code Section 44-96-325 (which is also consistent with R.61-107.11, Part IV) is used. The buffer from the fill area to the property line is increased to 200 ft. and is consistent with the other classes of landfills. A buffer is added that restricts placement of waste material within any property rights-of-way or within 50 ft. of under-ground or above-ground utility equipment or structures. This buffer is consistent with all other classes of landfills.

Subpart C. Operating Criteria. Language from R.61-107.13, R.61-107.16, and R.61-107.258 is used in this Subpart.

Under Procedures for Excluding the Receipt of Hazardous Waste and Special Waste, the random daily inspection of in-coming waste requirement is expanded by adding a requirement for no less than ten percent inspection of incoming loads. Operators may request an alternate schedule.

The requirement that facility personnel notify the Department when a regulated hazardous waste or PCB waste may have been received at the facility is expanded to include a time-frame of 72 hours for notifying the Department. This requirement is consistent with Class Two Landfills.

Subpart D. Design Criteria for Class Three Landfills. Language from R.61-107.13, R.61-107.16, R.61-107.258, and 40CFR258 is used in this Subpart.

New text is added to allow monofills that accept coal combustion byproducts testing greater than ten times the maximum contaminant level to be constructed with a clay liner system as outlined. The requirement for a double geomembrane liner when municipal solid waste incineration ash is disposed is deleted in compliance with changes to 40CFR258 and S.C. Code Ann. Section 44-96-350.

A new requirement is added for a minimum factor safety against failure based on soil type.

Subpart E. Groundwater Monitoring and Corrective Action. This Subpart is based on 40CFR258 regulations outlined in RCRA. No substantive changes have been made to the language in this Subpart.

Subpart F. Closure and Post-closure Care. Text from R.61-107.13, R.61-107.16, and R.61-107.258 is used plus some new language.

A new item is added that requires a storm water conveyance system for the landfill cap.

New text is added that requires certification testing of the cap to include one permeability test per acre and four density/thickness tests per acre.

During post closure care, a new requirement that 75% or greater vegetative ground cover be established and maintained is added.

Language regarding grading to promote positive drainage of the final cover system is revised to require at least a 3% but not greater than 5% surface slope, and a 3:1 side slope.

Subpart G. Financial Assurance Criteria. There is a reference to Part I. Section E. for financial assurance requirements.

Subpart H. Permit Application Requirements. Portions of text from R.61-107.13, R.61-107.16, and R.61-107.258 are used in addition to some new text. The format of this section is divided into different phases of review, e.g., administrative and technical reviews, pursuant to Regulation 61-30, Environmental Protection Fees.

A new requirement is added that requires the permit applicant to demonstrate compliance with the 1000 ft. buffer requirement from residences, day-care centers, etc. New text is added that requires a needs determination, pursuant to R.61-107.17. Also, language is added regarding maximum annual tonnage limit. Public notification requirements are added.

Subpart I. Leachate Recirculation. This section is new and outlines requirements for facilities that elect to place leachate generated by the facility back into the waste pile. Leachate and gas condensate generated by the facility are the only liquids allowed to go into the landfill. The section also specifies leachate application criteria and location criteria to ensure that the application of these liquids does not cause operational or structural issues with the landfill. A composite liner system as required for most Class Three landfills is the prescribed liner requirement for conducting leachate recirculation.

Subpart J. Permit Conditions and Permit Review. Language from R.61-107.13, R.61-107.16, and R.61-107.258 is used. A statement from S.C. Code Ann. Section 44-96-290.H. that permits are effective for the design and operational life of the facility is added.

A new requirement is added regarding the Department's 5-year review period. Upon notification by the Department, the permittee must submit a topographic survey showing contours at the beginning and the end of the review period.

Subpart K. Transfer of Ownership. Transfer of Ownership criteria in Part I., Section F.2.b. are referenced.

Appendix I. Acceptable Waste for Class Two Landfills. This Appendix is taken from R.61-107.11 and R.61-107.16 with some changes.

Under the acceptable debris list, cardboard, dry paint cans, dry caulking tubes, packaging material, and tubing, painted waste (including lead-based paint), and treated lumber are added. Friable asbestos-containing material is also added with a requirement that friable and nonfriable asbestos-containing material be disposed in a designated area and covered immediately upon receipt with at least six inches of acceptable material.

A list of brown goods is added to the acceptable list. Animal carcasses are added to the acceptable list under specified conditions.

Appendix II. Unacceptable Waste for Class Two Landfills. This Appendix is taken from R.61-107.11.

A statement defining when wastes are considered contaminated is added.

The list of wastes contaminated by lead-based paint is deleted. The list of wastes that have been in contact with friable asbestos material is deleted from the unacceptable list since it is added to the acceptable list. Also, containers such as empty paint cans and caulking tubes are deleted.

A list of cathode ray tubes and electronic equipment is added to the unacceptable waste for Class Two landfills.

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Appendix III. Constituents for Detection Monitoring for Class Two Landfills is a new appendix pursuant to the new groundwater monitoring requirements for Class Two Landfills.

Appendix IV. Constituents for Detection Monitoring for Class Three Landfills is taken from R.61-107.258 with no changes.

Appendix V. List of Hazardous Inorganic and Organic Constituents is taken from R.61-107.258 and updated based on revisions to 40CFR258 by adding Propylene dichloride; alpha, alpha-Dimethylphenethylamine; and 2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin to the list of constituents.

Appendix VI. Leachate Testing Parameters for Class Three Landfills is a new appendix that defines the constituents that must be monitored when landfills conduct leachate recirculation.

### Instructions:

1. Delete the following four regulations from Chapter 61 regulations:

61-107.11 Solid Waste Management: Construction, Demolition, and Land-clearing Debris Landfills is repealed in its entirety;

61-107.13 Solid Waste Management: Municipal Solid Waste Incinerator Ash Landfills is repealed in its entirety;

61-107.16 Solid Waste Management: Industrial Solid Waste Landfills is repealed in its entirety; and,

61-107.258 Solid Waste Management: Municipal Solid Waste Landfills is repealed in its entirety.

2. Add subregulation 61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill to R.61-107. Solid Waste Management:.

### Text:

R. 61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill.

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### Part I. General Requirements.

#### A. Applicability.

1. This regulation establishes minimum standards for the site selection, design, operation, and closure of all solid waste landfills and structural fill areas. Disposal of waste under the purview of this regulation is based on the waste's chemical/physical properties and is not dependent upon the source of generation with the exception of municipal solid waste that shall be disposed in Class Three landfills. This regulation is divided into the following parts:

a. Part I outlines the general criteria that applies to one or more Parts of the regulation, e.g., the applicability for the regulation, waste characterization requirements for determining the type of landfill needed, definitions for the purposes of this regulation;

b. Part II outlines the Permit-by-rule requirements for structural fill activity using a limited waste stream;

c. Part III outlines the General Permitting requirements for Class One Landfills - using land-clearing debris, and yard trash to fill low areas, including permitted mining sites, for an aesthetic benefit or property enhancement;

d. Part IV outlines the requirements for Class Two Landfills - all landfills for the disposal of waste as outlined in Appendix I of this regulation, and similar waste, and wastes that test, pursuant to Section C of this Part, less than ten (<10) times the maximum contaminant level (MCL) as published in R.61-58, State Primary Drinking Water Regulation current at the time of the permit application. When a waste not listed in Appendix I is approved by the Department for disposal, the landfill's permit will be modified to include the acceptability of the approved waste; and,

e. Part V outlines the requirements for Class Three Landfills that accept municipal solid waste, industrial solid waste, sewage sludge, nonhazardous municipal solid waste incinerator ash and other nonhazardous wastes.

2. This regulation replaces and simultaneously repeals Regulations: 61-107.11 Solid Waste Management: Construction, Demolition, and Land-clearing Debris Landfills; 61-107.13 Solid Waste Management: Municipal Solid Waste Incinerator Ash Landfills; 61-107.16 Solid Waste Management: Industrial Solid Waste Landfills; and 61-107.258 Solid Waste Management: Municipal Solid Waste Landfills. The Department will automatically convert as an administrative modification all existing landfill permits to the appropriate Part as outlined in this regulation.

3. A separate permit shall be required for each landfill even though there may be one or more different types of landfills located in different areas on the same site.

4. This regulation applies to all new and existing solid waste landfills and to all structural fill activities. All new solid waste landfills shall be in compliance with all requirements of this regulation prior to receipt of waste.

5. This regulation becomes effective upon publication as final in the State Register.

6. Existing permitted solid waste landfills shall comply with the following:

a. Existing permitted landfills operating on the effective date of this regulation are not subject to the location criteria outlined herein, but shall be subject to all other provisions of this regulation;



b. Within 180 days of the effective date of this regulation, existing permitted landfills that are not in compliance with required standards, shall submit to the Department a plan to bring the landfill into compliance with requirements of this regulation; and,

c. All landfills operating on the effective date of this regulation shall be in compliance with the requirements of this regulation within 18 months of the effective date of this regulation, unless additional time is allowed pursuant to requirements of this regulation.

7. Landfills for the disposal only of trees, stumps, wood chips, and yard trash when generation and disposal of such waste occurs on properties under the same ownership or control are exempt from the requirements of this regulation. Also, land-clearing debris generated from agricultural or silvicultural operations generated and disposed on site are not subject to the requirements of this regulation.

8. Open dumping is prohibited.

9. Use of Design Document, Plans, and Specifications.

a. The owner/operator of a solid waste landfill shall maintain copies of all Department approved plans and specifications for the landfill at a location readily accessible by landfill personnel and representatives of the Department during regular business hours; and,

b. All landfill operations shall be in accordance with this regulation and with all Department approved plans and specifications for the facility. Failure to operate in accordance with this regulation and/or the approved plans and permit may result in enforcement action by the Department.

10. All activities conducted under the purview of this regulation shall adhere to all Federal and State rules and regulations, and all local zoning, land use, and other applicable ordinances and laws;

**B. Definitions for the Purposes of this Regulation.**

1. "Active life" means the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities in accordance with this regulation.

2. "Active portion" means that part of a facility that has received or is receiving wastes and that has not been closed in accordance with this regulation.

3. "Administratively complete" means a determination by the Department that all elements of an application, as specified herein, have been received to include all required signatures and tender of the application fee, where required.

4. "Airport" means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

5. "Applicant" means an individual, corporation, partnership, business association, or government entity that applies for the issuance, transfer, or modification of a permit under this regulation.

6. "Aquifer" means a geological formation, group of formations, or portion of a formation, capable of yielding significant quantities of groundwater to wells or springs.

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7. "Areas susceptible to mass movement" means those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the landfill, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

8. "Ash" means the solid residue from the incineration of solid wastes.

9. "Beneficial fill" means filling to surrounding grade, low areas or depressions in the surface of the earth to include permitted mining sites for an aesthetic benefit.

10. "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

11. "Bulk PCB Waste" means waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was  $\geq 50$  ppm PCBs. PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under 40CFR761, the Toxic Substances Control Act (TSCA), Sections 761.60(a) through (c), Sec. 761.61, Sec. 761.63, or Sec. 761.64. PCB bulk product waste includes, but is not limited to:

(a) Non-liquid bulk wastes or debris from the demolition of buildings and other man-made structures manufactured, coated, or serviced with PCBs. PCB bulk product waste does not include debris from the demolition of buildings or other man-made structures that is contaminated by spills from regulated PCBs which have not been disposed of, decontaminated, or otherwise cleaned up in accordance with TSCA requirements, Sec. 761.61.

(b) PCB-containing wastes from the shredding of automobiles, household appliances, or industrial appliances.

(c) Plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts; or furniture laminates); preformed or molded rubber parts and components; applied dried paints, varnishes, waxes or other similar coatings or sealants; caulking; adhesives; paper; Galbestos; sound deadening or other types of insulation; and felt or fabric products such as gaskets.

(d) Fluorescent light ballasts containing PCBs in the potting material.

12. "Closure" means the discontinuance of operation by ceasing to accept, treat, store, or dispose of solid waste in a manner which minimizes the need for further maintenance and protects human health and the environment.

13. "Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

14. "Construction" means any physical modification to the site at which a potential or proposed solid waste management facility is to be located including, but not limited to, site preparation.

15. "Contingency plan" means a document acceptable to the Department setting out an organized, planned, and coordinated course of action to be followed at or by the facility in case of a fire, explosion, or other incident that could threaten human health and safety or the environment.

16. "Cover" means soil or other suitable material, or both, acceptable to the Department that is used to cover compacted solid waste in a land disposal site.

17. "Department" means the South Carolina Department of Health and Environmental Control.
18. "Disclosure statement" means a sworn statement or affirmation, the form and content of which shall be determined by the department and as required by SC Code Section 44-96-300.
19. "Displacement" means the relative movement of any two (2) sides of a fault measured in any direction.
20. "Disposal" means the discharge, deposition, injection, dumping, spilling, or placing of any solid waste into or on any land or water, so that the substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwater.
21. "Existing landfill" means any landfill that is permitted to receive solid waste as of the effective date of this regulation.
22. "Expand" or "Expansion" means, for the purposes of this regulation, any increase in the permitted capacity of a solid waste disposal facility, or any increase in the total volume at a solid waste disposal facility.
23. "Facility" means all contiguous land, structures, other appurtenances and improvements on the land used for treating, storing, or disposing of solid waste. A facility may consist of several treatment, storage, or disposal operational units, including, but not limited to, one or more landfills, surface impoundments, or combination thereof.
24. "Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.
25. "Financial assurance mechanism" means a mechanism designed to demonstrate that sufficient funds will be available to meet specific environmental protection needs of solid waste management facilities. Available financial responsibility mechanisms include, but are not limited to insurance, trust funds, surety bonds, letters of credit, certificates of deposit, and financial tests as determined by the Department by regulation.
26. "Flood plain" means the lowland and relatively flat areas adjoining inland and coastal areas of the mainland and off-shore islands including, at a minimum, areas subject to a one percent or greater chance of flooding in any given year.
27. "100-year flood" means a flood that has a 1-percent or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.
28. "Footprint" means the outer most edges of the waste disposal area.
29. "Gas condensate" means the liquid generated as a result of gas recovery process(es) at the landfill.
30. "Generator" means any person, by site, whose action or process produces solid waste, or whose action first causes a solid waste to become subject to regulation.
31. "Groundwater" means water beneath the land surface in the saturated zone.
32. "Hazardous waste" has the meaning provided in Section 44-56-20 of the South Carolina Hazardous Waste Management Act.
33. "High water table" means the highest water elevations measured at the uppermost aquifer.

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34. "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present.

35. "Household waste" means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreational areas).

36. "Industrial waste" means solid waste that results from industrial processes including, but not limited to, factories and treatment plants.

37. "Karst terranes" means areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

38. "Landfill" means a disposal facility or part of a facility where solid waste is placed in or on land, and which is not a land treatment facility, a surface impoundment, or an injection well.

39. "Land-clearing debris" means solid waste which is generated solely from land-clearing activities, but does not include solid waste from agricultural or silvicultural operations.

40. "Lateral expansion" means a horizontal expansion of the footprint of an existing landfill.

41. "Leachate" means the liquid that has percolated through or drained from solid waste or other man-emplaced materials and that contains soluble, partially soluble, or miscible components removed from such waste.

42. "Lead-based paint" means paint containing greater than 600 parts per million (ppm) total lead by weight, calculated as lead metal in the total nonvolatile content, i.e., >0.06%; or, when measured in situ with an X-ray Fluorescence Spectrum Analyzer (XRF), paint containing  $\geq 0.7$  mg/cm<sup>2</sup>.

43. "Liquid waste" means any waste material that is determined to contain "free liquids" as defined by Method 9095B (Paint Filter Liquids Test), and as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846, as amended by EPA final updates).

44. "Lithified earth material" means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth's surface.

45. "Local government" means a county, any municipality located wholly or partly within the county, and any other political subdivision located wholly or partly within the county when such political subdivision provides solid waste management services.

46. "Lower explosive limit" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25° C and atmospheric pressure.

47. "Maximum horizontal acceleration in lithified earth material" means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90% or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

48. "Modification" means changes to a solid waste landfill as follows:
- a. "Minor modification" means a change that keeps the permit current with routine changes to the facility or its operations, or an administrative change; and,
  - b. "Major modification" means a change that substantially alters the facility or its operations, e.g., tonnage increase above 25%, any volumetric capacity increase, alternate designs that vary from the design prescribed in this regulation.
49. "Municipal solid waste" includes, but is not limited to, wastes that are durable goods, nondurable goods, containers and packaging, food scraps, and miscellaneous inorganic wastes from residential, commercial, institutional, and industrial sources including, but not limited to, appliances, automobile tires, newspapers, clothing, disposable tableware, office and classroom paper, wood pallets, and cafeteria wastes.
50. "Municipal solid waste incinerator" means any solid waste incinerator, publicly or privately owned, that receives household waste. Such incinerator may receive other types of solid waste such as commercial or industrial solid waste.
51. "On-site landfill" means landfills that accept only solid waste generated in the course of normal operations on property under the same ownership or control as the waste management facility.
52. "Open burning" means any fire or smoke-producing process which is not conducted in any boiler plant, furnace, high temperature processing unit, incinerator or flare, or in any other such equipment primarily designed for the combustion of fuel or waste material.
53. "Open dumping" means any unpermitted or unregistered solid waste disposal or land filling activity.
54. "Pay-in period" means the time frame allotted for making annual payments into a trust fund.
55. "Perennial stream" means a stream or reach of a stream that flows continuously throughout the year and whose upper surface generally stands lower than the water table in the region adjoining the stream.
56. "Permit" means the process by which the department can ensure cognizance of, as well as control over, the management of solid wastes.
57. "Permittee" means the person to whom the Department issued either a permit, an approval to operate under a General Permit, or a Permit-by-rule, pursuant to this regulation.
58. "Person" means an individual, corporation, company, association, partnership, unit of local government, state agency, federal agency, or other legal entity.
59. "Poor foundation conditions" means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill.
60. "Practical Quantitation Limit (PQL)" means the lowest concentration of an analyte that can be measured within specified limits of precision and accuracy during routine laboratory operating conditions.
61. "Putrescible wastes" means solid waste that contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to be capable of creating foul smelling odors and attracting or providing food for animals.

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62. "Qualified professional" means a qualified South Carolina registered professional geologist or qualified South Carolina registered professional engineer. Under Part IV Section E and Part V Subpart E the qualified professional shall have sufficient training and experience in groundwater hydrology and related fields, including groundwater monitoring, contaminant fate and transport, and corrective-action.

63. "Recharge area" for a particular aquifer is defined as areas where water enters the aquifer through downward migration. Principal examples include: outcrop areas of a particular aquifer where the potentiometric head within the unit decreases with depth; and, in the subsurface, where the potentiometric head relationship and leakage factors across any confining unit allow for downward flow into other aquifer systems.

64. "Region" means a group of counties in South Carolina that is planning to or has prepared, approved, and submitted a regional Solid Waste Management Plan to the Department pursuant to S.C. Code Section 44-96-80.

65. "Regulated hazardous waste" means a solid waste that is a hazardous waste, as defined in R.61-79.261.3, Hazardous Waste Management Regulations, that is not excluded from regulation as a hazardous waste under R.61-79.261.4(b), or was not generated by a conditionally exempt small quantity generator as defined in R.61-79.261.5.

66. "Regulatory threshold" means promulgated levels that can not be equaled or exceeded.

67. "Representative sample" means a sample that statistically represents the population.

68. "Responsible party" means:

a. Any officer, corporation director, or senior management official of a corporation, partnership, or business association that is an applicant;

b. A management employee of a corporation, partnership, or business association that is an applicant who has overall responsibility for operations and financial management of the facility under consideration;

c. An individual, officer, corporation director, senior management official of a corporation, partnership, or business association under contract to the applicant to operate the facility under consideration; or,

d. An individual, corporation, partnership, or business association that holds, directly or indirectly, at least five percent (5%) equity or debt interest in the applicant. If any holder of five percent or more of the equity or debt of the applicant is not a natural person, the term means any officer, corporation director, or senior management official of the equity or debt holder who is empowered to make discretionary decisions with respect to the operation and financial management of the facility under consideration.

69. "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

70. "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

71. "Saturated zone" means that part of the earth's crust in which all voids are filled with water.

72. "Seismic impact zone" means an area with a 10% or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in 250 years.

73. “Sludge” means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

74. “Small business” means a commercial retail service, industry entity, or nonprofit corporation, including its affiliates, that:

- a. Is, if a commercial retail service or industry service, independently owned and operated; and,
- b. Employs fewer than one hundred (100) full-time employees or has gross annual sales or program service revenues of less than five million dollars.

75. “Sole source aquifer” is defined as specified in the Federal Safe Drinking Water Act.

76. “Solid waste” means any garbage, refuse, or sludge from a waste treatment facility, water supply plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. This term does not include solid or dissolved material in domestic sewage, recovered materials, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to NPDES permits under the Federal Water Pollution Control Act, as amended, or the Pollution Control Act of South Carolina, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended. Also excluded from this definition are application of fertilizer and animal manure during normal agricultural operations or refuse as defined and regulated pursuant to the South Carolina Mining Act, including processed mineral waste, which will not have a significant adverse impact on the environment.

77. “Special Wastes” means nonresidential or commercial solid wastes, other than regulated hazardous wastes, that are either difficult or dangerous to handle and require unusual management at Class Three landfills, including, but not limited to, those wastes contained in S.C. Code Section 44-96-390.(A).

78. “Special Wastes Analysis and Implementation Plan” means the procedures used to identify and manage special wastes at Class Three landfills, pursuant to SC Code Section 44-96-390.

79. “State” means the State of South Carolina.

80. “Structural components” means liners, leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of the landfill that is necessary for protection of human health and the environment.

81. “Structural fill” means landfilling for future beneficial use utilizing land-clearing debris, hardened concrete, hardened/cured asphalt, bricks, blocks, and other materials specified by the department by regulation, compacted and landfilled in a manner acceptable to the department, consistent with applicable engineering and construction standards and carried out as a part of normal activities associated with construction, demolition, and land-clearing operations; however, the materials utilized must not have been contaminated by hazardous constituents, petroleum products, or painted with lead-based paint. Structural fill may not provide a sound structural base for building purposes.

82. “Structural integrity” means the ability of a landfill to withstand physical forces exerted upon designed components, appurtenances, and containment structures (e.g., liners, dikes) of the landfill.

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83. "Surface water" means lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within territorial limits, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private. (This does not include drainage ditches, sedimentation ponds and other operational features on the site.)

84. "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and Karst terranes.

85. "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

86. "Vector" means a carrier that is capable of transmitting a pathogen from one organism to another including, but not limited to, flies and other insects, rodents, birds, and vermin.

87. "Vertical expansion" means an expansion of an existing solid waste landfill above previously permitted elevations for the purposes of gaining additional capacity.

88. "Washout" means the carrying away of solid waste by waters of the one-hundred year base flood.

89. "Wetlands" means those areas that are defined in 40 Code of Federal Regulations (CFR) Section 232.2(r) or State law.

90. "Yard trash" means solid waste consisting solely of vegetative matter resulting from landscaping maintenance.

### C. Waste Characterization.

#### 1. Waste Characterization Report.

a. Determination of the proper landfill class for disposal of a waste stream is based on the chemical and physical properties of the waste and not on the source of generation of the waste. To determine the class of landfill required for proper disposal of a waste stream, the permittee shall submit to the Department a waste characterization report. The waste characterization report shall consist of a comprehensive analytical evaluation of the chemical and physical nature of each waste stream. Hazardous wastes as defined in R.61-79, Hazardous Waste Management Regulations shall not be disposed of in the landfills under the purview of this regulation. The wastes acceptable for disposal in a Class One landfill, and waste items listed in Appendix I are exempt from the waste characterization process outlined in this regulation. Class Three landfills shall adhere to their approved Special Waste Analysis and Implementation Plan (SWAIP), pursuant to S.C. Code Section 44-96-390 which shall be deemed to be in compliance with this Section.

b. The toxicity characteristic leaching procedure (TCLP) (USEPA method 1311) shall be used to obtain all extracts for the purpose of characterizing a waste stream proposed for disposal in a solid waste landfill.

c. The analytical results of the TCLP shall be compared to the MCLs in South Carolina R.61-58 State Primary Drinking Water Regulation to determine the appropriate class landfill in which the waste stream may be disposed. If no MCL exists for a parameter, then those drinking water risk-based concentrations recognized by EPA Region IV shall be used to determine the appropriate class landfill for the waste. For those parameters where no MCL or Region IV number exists, the Department, using input from the permittee, will develop an appropriate number for determining the landfill class for disposal of that waste stream.



d. Unless otherwise exempted in this regulation, all wastes shall be characterized in accordance with the following schedule:

- (1) A minimum of every three years using certified knowledge of the process by which the waste stream was generated;
- (2) At a minimum of every six years using analytical test data from the TCLP;
- (3) According to a Department approved alternate schedule based on the variability or non-variability noted in previous sampling events or other factors that affect the predictability of waste characteristics;
- (4) When the process or raw materials used in the process that generates the waste changes significantly enough to alter the chemical makeup or chemical ratios of the waste stream; and,
- (5) When a new waste stream is proposed for disposal.

e. Waste streams not listed in Appendix I, that demonstrate properties similar to the waste listed on Appendix I, may be exempted from testing as determined by the Department on a case-by-case basis. Requests for an exemption from testing, along with technical rationale for the exemption, shall be submitted to the Department in writing.

f. The Department will provide current forms and guidance documents needed for the successful completion of the waste characterization process. All analytical results from the characterization process shall be submitted to the Department on these forms or in a format approved by the Department.

## 2. Waste Testing and Waste Stream Determination.

a. The permittee shall submit to the Department a comprehensive determination of the chemical and physical nature of each waste stream to be landfilled in accordance with the following sampling and analytical requirements:

(1) To ensure that representative samples are obtained, the sampler shall develop a sampling plan and employ all reasonable measures, such as sampling different sources of solid waste at different times, or conducting random sampling of a representative pile of the waste generated from different sources at different times. All samples of waste shall be collected using procedures as described in EPA Publication SW-846.

(2) All analytical testing required by this regulation shall be performed by a laboratory certified by the Department for the appropriate methodologies, to both properly prepare and analyze for the required parameters. The current guidelines for applicable regulatory thresholds, practical quantitation limits, and required quality assurance data shall be obtained from the Department prior to the start of the characterization project. Analytical results shall be submitted to the Department within 60 days of the sample collection date.

(3) Mixing of individual wastes to be disposed of prior to testing is acceptable only if:

(a) The individual wastes are mixed prior to discharge in the normal production process of the generator or the individual wastes are generated by identical processes and identical raw materials; or,

(b) The mixing of individual non-hazardous wastes results in a waste in which leaching characteristics are no greater than the leaching characteristics of one or more of the individual wastes; and,

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i. A demonstration is submitted to the Department for review and approval that details how a reduction in leaching occurs due to some factor other than dilution. The demonstration shall include, at a minimum:

aa. The concentration, determined in accordance with the requirements of this Section, for each parameter which undergoes a reduction in concentration. Concentrations of parameters shall be determined for each individual waste in the mixture and for each parameter as a result of the mixture;

bb. A listing and the ratio, by weight and volume, of the individual wastes which comprise the mixture;

cc. Calculations using the concentration and weight data required in paragraphs aa. and bb. above, which demonstrate quantitatively that the reduction in leaching characteristics is not solely due to dilution; and,

dd. An identification and explanation of the chemical reactions, including chemical equations, which cause the reduction.

ii. The individual non-hazardous wastes are mixed in the same ratios and in the same manner in which they will be mixed prior to disposal.

(4) For the purpose of obtaining an extract, which will be analyzed for any volatile organic compounds, a zero head space extraction apparatus, as specified in the TCLP, shall be used.

(5) Practical Quantitation Limits (PQLs) for the analytical methods shall be one order of magnitude below the required regulatory threshold for the particular landfill class desired for disposal. Slight deviations in minimum PQL may be granted, on a case-by-case basis, with proper application and technical justification to the Department.

b. For the initial characterization of solid waste to be disposed of in a solid waste landfill, a minimum of two (2) representative samples of the waste shall be collected and tested in accordance with the TCLP. TCLP testing of additional samples of the solid waste may be required by the Department, based on a high degree of variability in the concentration of a parameter at or near the maximum allowable concentration for a particular landfill class. The Department may allow, with prior approval, the testing for selected constituents based on the generators knowledge of the process.

c. The permittee shall notify and obtain approval from the Department prior to making any physical or chemical changes to the waste stream being disposed of in a solid waste landfill.

(1) Significant changes in the chemical or physical nature of the waste stream may require disposal of the waste stream in a different class of landfill.

(2) Significant changes to the chemical or physical nature of the waste stream may require modification of the environmental monitoring program.

d. Any person seeking to utilize a testing or analytical method other than the TCLP method described in Section C.1.b. above may request authorization to do so. To be successful, the applicant shall demonstrate to the satisfaction of the Department that the proposed method is equal to or superior to the TCLP in terms of its sensitivity, accuracy, and precision (i.e., reproducibility). The request shall include, at a minimum:

(1) A full description of the proposed method, including all procedural steps and equipment used in the method;

(2) Description of the types of wastes or waste matrices for which the proposed method may be used;

(3) Comparative results obtained from using the proposed method with those obtained from using the TCLP;

(4) An assessment of any factors, which may interfere with, or limit the use of, the proposed method;

(5) A description of the quality control procedures necessary to ensure the sensitivity, accuracy, and precision of the proposed method; and,

(6) Any other information on the proposed method, which the Department may reasonably request to evaluate the proposed method.

e. The outcome of an alternate testing procedure as outlined in Section C.2.d. above may result in revision of the landfill class limits as defined in Part I, Section A.1. of this regulation to ensure equivalent protection of human health and the environment.

f. Solid waste streams that contain chemicals or chemical properties potentially harmful to human health and the environment, for which TCLP or other approved testing procedures as outlined in Section C.2.d. above is not sufficient, shall be classified on a case-by-case basis by the Department. The permit applicant may be required to perform alternate testing procedures as necessary to determine the potential adverse effects to human health and the environment.

g. A sampling and analysis plan for performing the activities outlined in Section C.2.a.-f. above shall be submitted to the Department for review and approval prior to sampling for waste characterization purposes.

h. If the waste characterization test results indicate that a landfill reclassification is necessary based on exceedance of the landfill classification level outlined in Part IV A.1., the Department may require additional sampling and testing to confirm or reject such indication. If exceedance of the landfill classification level outlined in Part IV A.1 is confirmed and the facility intends to continue to accept the waste stream in question, the Department will require the permittee to submit a permit application for appropriate modifications to the landfill. The required modifications shall insure that the facility meets the requirements of the new landfill classification.

### 3. Waste Characterization Report for Class Two Landfills.

a. Class Two landfills shall, prior to permit issuance, submit a waste characterization report that contains at a minimum, the following:

(1) A listing of each solid waste proposed for disposal in the facility;

(2) The solid waste sampling plan used to ensure that accurate and representative samples are collected in accordance with Section C.2.a. above;

(3) A detailed description of any mixing to be proposed as described in Section C.2.a. above, and any available information that is required by that section;

(4) All laboratory results and quality assurance/quality control documentation that fully characterizes each waste; and,

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(5) The name, location, and contact person of each generator of solid waste to be disposed of at the facility.

b. Class Two landfills that accept ONLY those wastes specifically listed in Appendix I are exempt from the waste characterization report requirements.

c. Class Three landfills shall adhere to their approved Special Waste Analysis and Implementation Plan (SWAIP), pursuant to S.C. Code Section 44-96-390.

4. Compliance with the Department approved SWAIP will satisfy requirements of this section for Class Three landfills.

### D. Permit Application Process.

#### 1. Determination of Need and Consistency.

a. Prior to submittal of a permit application to the Department for a new or expanded Class Two or Class Three Landfill, the applicant shall provide documentation of property ownership (e.g., tax map or deed) or proof of property control (e.g., contract) and request the following determinations by the Department:

(1) That there is a need for the proposed landfill or landfill expansion pursuant to Regulation 61-107.17 and that the Department has determined the maximum yearly disposal rate pursuant to Regulation 61-107.17;

(2) That the proposed landfill or landfill expansion is consistent with the State and county/region solid waste management plans pursuant to S.C. Section 44-96-290(F);

(3) That the proposed landfill or landfill expansion is consistent with local zoning, land use, and any other applicable ordinances pursuant to S.C. Code Section 44-96-290(F);

(4) That the proposed landfill or landfill expansion meets the buffer requirements set forth in Part IV, B.1.a. of this Regulation for Class Two landfills and Part V, Subpart B.258.18.a. of this Regulation for class Three landfills;

b. Where, prior to the effective date of this regulation, the Department has made determinations required under Part I.D.1.a. of this regulation, such determinations shall remain applicable and become the agency's final determination under Part I.D.1, subject to the appeal provision in Part I.D.1.c and the subsequent public notice and application process.

c. A Department decision involving a determination listed herein, may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23.

#### 2. Public Notification and Participation.

##### a. Notice of Intent to File a Permit Application.

(1) Within 15 days of notification from the Department that all requests for need and consistency determinations as outlined in Section D.1.a. above have been submitted to the Department for a new or expanding Class Two or Class Three Landfill, the applicant shall publish Notice of Intent to File a Permit Application in a newspaper of general circulation in the area of the proposed landfill project. The notice shall be published in the legal section of the paper for three consecutive days. This section does not apply to major permit modifications that are not expansions of an existing landfill.

(2) The notice shall contain at least the following:

- (a) Name and address of the applicant;
- (b) The location of the proposed landfill or landfill expansion to include the county, roads and crossroads;
- (c) The town or community nearest to the proposed landfill or landfill expansion;
- (d) The proposed size of the landfill or landfill expansion, i.e., footprint acreage;
- (e) An explanation of the type(s) of waste that will be accepted;
- (f) A statement that a request has been submitted to the Department for a determination that there is a need for the proposed landfill or landfill expansion pursuant to Regulation 61-107.17 and for a determination of the maximum yearly disposal rate pursuant to Regulation 61-107.17;
- (g) A statement that a request has been submitted to the Department for a determination that the proposed landfill or landfill expansion is consistent with the State and county/region solid waste management plans pursuant to S.C. Section 44-96-290(F);
- (h) A statement that a request has been submitted to the Department for a determination that the proposed landfill or landfill expansion is consistent with local zoning, land use, and any other applicable ordinances pursuant to S.C. Code Section 44-96-290(F);
- (i) A statement that a request has been submitted to the Department for a determination that the proposed landfill or landfill expansion meets the buffer requirements set forth in Part IV, B.1.a. of this Regulation for Class Two landfills and Part V, Subpart B.258.18.a. of this Regulation for Class Three landfills;
- (j) Department locations (Central Office and appropriate Regional Office) where a copy of these documents can be viewed during normal working hours; and,
- (k) The Department's address and contact name for submittal of inquiries and placement of name on the Department's mailing list for future decisions.

(3) No permit application may be accepted by the Department for filing unless accompanied by documentation from the newspaper that publication has been made.

(4) No later than the first date of publication in the newspaper, the applicant shall mail a copy of the Notice of Intent to File a Permit Application by certified mail, return receipt requested, to all adjoining landowners of the proposed landfill or landfill expansion.

b. Notice of Draft Determinations of Need and Consistency Under Section D.1.a. Above.

(1) For Class Two and Class Three landfills, the Department will publish a notice when the draft determinations are ready for review for all new or expanded landfills. This notice will be published in a newspaper of general circulation in the area of the proposed landfill and sent to affected persons who have asked to be notified. The notice will list locations where a copy of the draft determinations can be reviewed. The public will have a 30-day period to review the draft determinations and submit comments to the Department, pursuant to the Administrative Procedures Act, SC Code Section 1-23-10 et seq.

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### (2) Public Hearings for Draft Determinations.

(a) The Department will conduct a public hearing upon receipt of requests in writing by ten (10) persons or by a governmental subdivision or agency or by an association having not less than ten members.

(b) A request for a public hearing must be mailed (postmarked) to the Department during the 30 day comment period and shall be based on technical reasons relating to siting, design, or operation of the landfill. The Department will send a notice acknowledging receipt of a request for a public hearing to the applicant and to the person(s) requesting a hearing within 15 days following receipt of the request. The Department will publish a notice of the time, date, and location of the hearing.

(3) Notice of Department Determinations. After close of the public comment period on the draft determination and the public hearing, if held, the Department will issue a Department Decision. Notice of the Department Decision will be sent by certified mail, return receipt requested, to the applicant. Notice of the Department's decision will be sent by regular mail, unless certified mail is requested, to affected persons who have asked to be notified, to all persons who commented in writing to the Department, and to all persons who attended the public hearing, if held. However, if the Department determines that members of the same group or organization have submitted comments or a petition, the Department may only notify all group leaders and petition organizers by certified mail, return receipt requested. The Department will ask these leaders and organizers to notify members of their groups or any concerned citizens who signed the petitions. The Department will also publish notice of the Department Decision in a newspaper of general circulation in the area of the proposed activity. The Department's notice will include instructions on how to request a final review conference and the time frame for filing such a request.

### c. Notice of Filing Permit Application.

(1) Notice of all applications submitted to the Department for the initial construction and major modifications of Class Two and Class Three landfills shall be published by the applicant once in a newspaper of general circulation in the area of the proposed landfill project. Notice for Class Two landfill application shall be published as provided in Part IV, Section H.3. Notice for new Class Three landfills that accept municipal solid waste shall be published as provided in S. C. Code Section 44-96-470 and Part V, Subpart H.3.a. of this regulation within 15 days of filing the permit application. Notice for all other new Class Three landfills shall be published as provided in Part V, Subpart H.3.b.

### (2) All notices shall contain the following:

- (a) Name and address of the applicant;
- (b) The location of the proposed activity to include the county, roads and crossroads. (Class Three landfills shall provide a location map of the proposed site);
- (c) The nature of the proposed activity;
- (d) A description of the proposed site or a description of the proposed major modification;
- (e) An explanation of the type(s) of waste that will be accepted;
- (f) Department locations (Central Office and appropriate Regional Office) where a copy of the permit application or draft permit, as appropriate, can be viewed during normal working hours;
- (g) The Department's address and contact name for submittal of comments and inquires;

- (h) The approximate tonnage/year expected for disposal at the landfill; and,
- (i) The proposed life of the landfill.

(3) The Department will send a notice of receipt of the permit application by regular mail to all adjoining landowners of the proposed landfill.

d. Public notification requirements for Class One landfills are defined in Part III, Section B.4.

e. Notice of Draft Permit. For Class Two and Class Three landfills, the Department will publish a notice when the draft permit is ready for review for all new landfills and for major modifications as determined by the Department. This notice will be published in a newspaper of general circulation in the area of the proposed landfill and will be sent to affected persons who have asked to be notified. The notice will list locations where a copy of the draft permit can be reviewed. The public will have a 30-day period to review the draft permit and submit comments to the Department, pursuant to the Administrative Procedures Act, SC Code Section 1-23-10 et seq.

f. Public Hearings for Draft Permits.

(1) The Department will conduct a public hearing upon receipt of requests in writing by ten (10) persons or by a governmental subdivision or agency or by an association having not less than ten members.

(2) A request for a public hearing must be mailed (postmarked) to the Department during the 30 day comment period and shall be based on technical reasons relating to siting, design, or operation of the landfill. The Department will send a notice acknowledging receipt of a request for a public hearing to the applicant and to the person(s) requesting a hearing within 15 days following receipt of the request. The Department will publish a notice of the time, date, and location of the hearing.

g. Notice of Department Decision on the Permit. After close of the public comment period on the draft permit and the public hearing, if held, the Department will issue a Department Decision. Notice of the Department Decision will be sent by certified mail, return receipt requested, to the applicant. Notice of the Department's decision will be sent by regular mail, unless certified mail is requested, to affected persons who have asked to be notified, to all persons who commented in writing to the Department, and to all persons who attended the public hearing, if held. However, if the Department determines that members of the same group or organization have submitted comments or a petition, the Department may only notify all group leaders and petition organizers by certified mail, return receipt requested. The Department will ask these leaders and organizers to notify members of their groups or any concerned citizens who signed the petitions. The Department will also publish notice of the Department Decision in a newspaper of general circulation in the area of the proposed activity. The Department's notice will include instructions on how to request a final review conference and the time frame for filing such a request.

E. Financial Assurance Criteria. The requirements of this Section apply to all: Class One landfills, except landfills owned and operated by local government or a region comprised of local governments, State or Federal government; Class Two landfills, except landfills owned and operated by local government or a region comprised of local governments, State or Federal government; and, Class Three landfills, except landfills owned and operated by State or Federal government entities whose debts and liabilities are the debts and liabilities of the State or the United States.

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### 1. Financial Assurance for Closure.

a. The permittee shall have a detailed written estimate, in current dollars, of the cost of hiring a third party to close the largest area of the landfill ever requiring a final cover at any time during the active life in accordance with the closure plan. The permittee shall submit a copy of the estimate to the Department for review and approval.

(1) The cost estimate shall equal the cost of closing the largest area of the landfill ever requiring a final cover at any time during the active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

(2) During the active life of the landfill, the permittee shall annually adjust the closure cost estimate for inflation.

(3) The permittee shall increase the closure cost estimate and the amount of financial assurance provided if changes to the closure plan or landfill conditions increase the maximum cost of closure at any time during the remaining active life.

(4) The permittee may reduce the closure cost estimate and the amount of financial assurance provided for proper closure if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the landfill. The permittee shall submit justification for the reduction of the closure cost estimate and the amount of financial assurance to the Department for review and approval.

b. The permittee of each landfill shall establish financial assurance for closure of the landfill as required by this regulation using an allowable mechanism. The permittee shall provide continuous coverage for closure until released from financial assurance requirements, pursuant to this regulation.

### 2. Financial Assurance for Post-closure Care.

a. The permittee shall have a detailed written estimate, in current dollars, of the cost of hiring a third party to conduct post-closure care for the landfill in compliance with the applicable post-closure plan. The post-closure cost estimate used to demonstrate financial assurance shall account for the total costs of conducting post-closure care, including annual and periodic costs as described in the post-closure plan over the entire post-closure care period. The permittee shall submit a copy of the estimate to the Department for review and approval.

(1) The cost estimate for post-closure care shall be based on the most expensive costs of post-closure care during the post-closure care period.

(2) During the post-closure care period, the permittee shall annually adjust the post-closure cost estimate for inflation.

(3) The permittee shall increase the post-closure care cost estimate and the amount of financial assurance provided if changes in the post-closure plan or landfill conditions increase the maximum costs of post-closure care.

(4) The permittee may reduce the post-closure cost estimate and the amount of financial assurance provided if the cost estimate exceeds the maximum costs of post-closure care remaining over the post-closure care period. The permittee shall submit justification for the reduction of the post-closure cost estimate and the amount of financial assurance to the Department for review and approval.



b. The permittee of each landfill shall establish financial assurance for the costs of post-closure care as required by this regulation using an allowable mechanism. The permittee shall provide continuous coverage for post-closure care until released from financial assurance requirements for post-closure care.

3. Financial Assurance for Corrective Action.

a. A permittee of a landfill required to undertake a corrective action, pursuant to this regulation, shall have a detailed written estimate, in current dollars, of the cost of hiring a third party to perform the corrective action in accordance with the corrective action plan. The corrective action cost estimate shall account for the total costs of corrective action activities as described in the corrective action plan for the entire corrective action period. The permittee shall submit a copy of the estimate to the Department for review and approval.

(1) The permittee shall annually adjust the estimate for inflation until the corrective action program is completed, pursuant to this regulation.

(2) The permittee shall increase the corrective action cost estimate and the amount of financial assurance provided if changes in the corrective action program or landfill conditions increase the maximum costs of corrective action.

(3) The permittee may reduce the amount of the corrective action cost estimate and the amount of financial assurance provided in Section E.3.b. below, if the cost estimate exceeds the maximum remaining costs of corrective action. The permittee shall submit justification for the reduction of the corrective action cost estimate and the amount of financial assurance to the Department for review and approval.

b. The permittee of each landfill required to undertake a corrective action program, pursuant to this regulation, shall establish financial assurance for the most recent corrective action program using an allowable mechanism. The permittee shall provide continuous coverage for corrective action until released from financial assurance requirements for corrective action in accordance with this regulation.

4. Allowable Mechanisms. The mechanisms used to demonstrate financial assurance under this section shall ensure that the funds necessary to meet the costs of closure, post-closure care, and corrective action for known releases will be available whenever they are needed. Owners/operators shall choose from the options outlined herein. Payments made into the standby trust fund by the provider of the financial assurance pursuant to the Department instruction shall be transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee. An originally signed duplicate of the standby trust agreement shall be submitted to the Department with documentation of the selected mechanism(s).

a. Trust Fund.

(1) A permittee may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this regulation.

(a) The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(b) The text of the trust agreement shall be provided by the Department.

(c) The original trust agreement signed by the permittee and the trustee shall be submitted to the Department for review and approval. The trust agreement shall be accompanied by:

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i. Schedule A. This information shall be in a format approved by the Department, updated within 60 days of each change in cost estimate, and include, at a minimum, the following about the facility:

- (aa) Permit number, if available;
- (bb) Name of the permittee;
- (cc) Address of the facility;
- (dd) Current closure cost estimate; and,
- (ee) Current post-closure cost estimate, if appropriate.

ii. Schedule B. This information shall be in a format approved by the Department and include, at a minimum:

(aa) The amount of funds or property used to initially establish the trust fund; and,

(bb) The account number in which the funds are being held.

iii. A Certificate of Acknowledgment for Solid Waste Management Facility Trust Fund Agreement in a format approved by the Department to include, at a minimum, the:

- (aa) Name of the trustee; and,
- (bb) Name of the permittee.

(d) The trust fund shall be irrevocable and can not be changed or recalled without written agreements from the Department.

(2) Payments into the trust fund for closure and post-closure care shall be made annually by the permittee for five years or over the remaining life of the landfill, whichever is shorter. This period is referred to as the pay-in period. In the case of a trust fund for corrective action of known releases, the pay-in period shall consist of one-half (1/2) of the estimated length of the corrective action program.

(3) For a trust fund used to demonstrate financial assurance for closure and post-closure care, the first payment into the fund shall be at least equal to the current cost estimate for closure or post-closure care divided by the number of years in the pay-in period as defined in Section E.4.a.(2) above. The amount of subsequent payments shall be determined by the following formula:

$$\text{Next Payment} = \frac{\text{CE}-\text{CV}}{\text{Y}}$$

where CE is the current cost estimate for closure or post-closure care (updated for inflation or other changes), CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) For a trust fund used to demonstrate financial assurance for corrective action, the first payment into the trust fund shall be at least equal to one-half of the current cost estimate for corrective action, except as provided in Section E.4.h., divided by the number of years in the corrective action pay-in period as defined in Section E.4.a.(2) above. The amount of subsequent payments shall be determined by the following formula:

$$\text{Next Payment} = \frac{\text{RB-CV}}{Y}$$

where RB is the most recent estimate of the required trust fund balance for corrective action (i.e., the total costs that will be incurred during the second half of the corrective action period), CV is the current value of the trust fund, and Y is the number of years remaining on the pay-in period.

(5) The initial payment into the trust fund shall be made before the initial receipt of waste in the case of closure and post-closure care, or no later than 120 days after the corrective action remedy has been selected.

(6) If the permittee establishes a trust fund after having used one or more alternate mechanisms, the initial payment into the trust fund shall be at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to the applicable specifications.

(7) The permittee, or other person authorized to conduct closure, post-closure care, or corrective action activities may request reimbursement from the trustee for these expenditures. Requests for reimbursement shall be granted by the trustee only if sufficient funds are remaining in the trust fund to cover the most recent Department-approved cost estimate for closure, post-closure care, or corrective action, and if justification and documentation of the cost is placed in the operating record. The permittee shall notify the Department that the documentation of the justification for reimbursement has been placed in the operating record and that reimbursement has been received.

(8) The trust fund account shall contain, at a minimum, the amount of funds needed to complete final closure of the facility at any given time during the life of the facility. An annual statement shall be provided to the Department at least 30 days prior to the anniversary date of establishment of the fund that confirms the value of the trust fund account to include all payments made into the account and all reimbursements paid from the account during the previous year.

(9) The trust fund may be terminated by the permittee only if the permittee substitutes alternate acceptable financial assurance or if he is no longer required to demonstrate financial responsibility in accordance with this regulation.

b. Surety Bond Guaranteeing Payment or Performance.

(1) A permittee may demonstrate financial assurance for closure or post-closure care by obtaining a payment or performance surety bond which conforms to the requirements of this regulation. A permittee may demonstrate financial assurance for corrective action by obtaining a performance bond which conforms to the requirements of this regulation. The bond shall be effective before the initial receipt of waste in the case of closure and post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with this regulation. The permittee shall submit a copy of the bond to the Department. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury. The text of the surety bond shall be provided by the Department.

(2) In addition to the surety bond, the permittee shall establish a standby trust fund, to receive payments using a trustee that has the authority to act as a trustee and that is regulated and examined by a Federal or State agency. The text of the standby trust shall be provided by the Department.

(3) The following documents shall be submitted to the Department:

- (a) The original surety bond signed by the Surety and the permittee; and,
- (b) The original standby trust agreement signed by the permittee and the trustee.

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(4) The penal sum of the bond shall be in an amount at least equal to the current closure, post-closure care or corrective action cost estimate, whichever is applicable, except as provided in Section E.4.j.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the permittee fails to perform as guaranteed by the bond.

(6) The permittee shall establish a standby trust fund. The standby trust fund shall meet the requirements for a trust fund as defined in Section E.4.a. except the requirements for initial payment and subsequent annual payments specified in Section E.4.a.(2) through (5) above.

(7) Payments made under the terms of the bond shall be deposited by the surety directly into the standby trust fund. Payments from the trust fund shall be approved by the trustee.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the permittee and to the Department 120 days in advance of cancellation. If the surety cancels the bond, the permittee shall obtain alternate financial assurance as specified in this section.

(9) The permittee may cancel the bond only if alternate financial assurance is substituted as specified in this section or if the permittee is no longer required to demonstrate financial responsibility in accordance with this regulation.

### c. Letter of Credit.

(1) A permittee may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this regulation. The letter of credit shall be effective before the initial receipt of waste in the case of closure and post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with this regulation. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency. The text of the letter of credit shall be provided by the Department.

(2) The original letter of credit shall be submitted to the Department.

(3) The letter of credit shall be irrevocable and issued for a period of at least one (1) year in an amount at least equal to the current cost estimate for closure, post-closure care or corrective action, whichever is applicable, except as provided in Section E.4.a.. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least one year unless the issuing institution has canceled the letter of credit by sending notice of cancellation by certified mail to the permittee and to the Department 120 days in advance of cancellation. If the letter of credit is canceled by the issuing institution, the permittee shall obtain alternate financial assurance.

(4) The permittee may cancel the letter of credit only if alternate financial assurance is substituted as specified in this section or if the permittee is no longer required to demonstrate financial responsibility in accordance with this regulation.

### d. Insurance.

(1) A permittee may demonstrate financial assurance for closure and post-closure care by obtaining insurance that conforms to the requirements of this regulation. The insurance shall be effective before the initial receipt of waste in the case of closure and post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with the requirements of this regulation. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States. The permittee shall submit a copy of the insurance

policy to the Department for review and approval. Once approved, the permittee shall submit a copy of the effective insurance policy including all endorsements and attachments to the Department.

(2) The closure or post-closure care insurance policy shall guarantee that funds will be available to close the landfill whenever final closure occurs or to provide post-closure care for the landfill whenever the post-closure care period begins, whichever is applicable. The policy shall also guarantee that once closure or post-closure care begins, the insurer shall be responsible for the paying out of funds to the permittee or other person authorized to conduct closure or post-closure care, up to an amount equal to the face amount of the policy.

(3) The insurance policy shall be issued for a face amount at least equal to the current cost estimate for closure or post-closure care, whichever is applicable, except as provided in the section that addresses the use of multiple financial mechanisms. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) A permittee, or any other person authorized to conduct closure or post-closure care, may receive reimbursements for closure or post-closure expenditures, whichever is applicable. Requests for reimbursement shall be granted by the insurer only if the remaining value of the policy is sufficient to cover the remaining costs of closure or post-closure care, and if justification and documentation of the cost is submitted to and approved by the Department.

(5) Each policy shall contain a provision allowing assignment of the policy to a successor permittee. Such assignment may be conditional upon consent of the insurer, provided that such consent is not unreasonably refused.

(6) The insurance policy shall provide that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may cancel the policy by sending notice of cancellation by certified mail to the permittee and to the Department 120 days in advance of cancellation. If the insurer cancels the policy, the permittee shall obtain alternate financial assurance.

(7) For insurance policies providing coverage for post-closure care, the insurer shall annually increase the face amount of the policy beginning on the date that liability to make payments is initiated. Such increase shall be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85% of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(8) The permittee may cancel the insurance policy only if alternate acceptable financial assurance is substituted, or if the permittee is no longer required to demonstrate financial responsibility in accordance with this regulation.

e. Corporate Financial Test. A permittee that satisfies the requirements of this section may demonstrate financial assurance up to the amount specified below:

(1) Financial component.

(a) The permittee shall satisfy one of the following three conditions:

i. A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; or,

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ii. A ratio of less than 1.5 comparing total liabilities to net worth; or,

iii. A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities.

(b) The tangible net worth of the permittee shall be greater than:

i. The sum of the current closure, post-closure care, corrective action cost estimates and any other environmental obligations, including guarantees, covered by a financial test plus \$10 million, except as provided in paragraph E.4.e.(1)(b)ii. below.

ii. \$10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements provided all of the current closure, post-closure care, and corrective action costs and any other environmental obligations covered by a financial test are recognized as liabilities on the owner's or operator's audited financial statements, and subject to the approval of the Department.

(c) The Permittee shall have assets located in the United States amounting to at least the sum of current closure, post-closure care, corrective action cost estimates and any other environmental obligations covered by a financial test as described herein.

(2) Record keeping and reporting requirements.

(a) The permittee shall place the following items into the facility's operating record and submit a copy to the Department:

i. A letter signed by the permittee's chief financial officer that:

(aa) Lists all the current cost estimates covered by a financial test, including, but not limited to, cost estimates required for municipal solid waste management facilities under 40 CFR Part 258, cost estimates required for UIC facilities under 40 CFR part 144, if applicable, cost estimates required for petroleum underground storage tank facilities under 40 CFR part 280, if applicable, cost estimates required for PCB storage facilities under 40 CFR part 761, if applicable, and cost estimates required for hazardous waste treatment, storage, and disposal facilities under 40 CFR parts 264 and 265, if applicable; and,

(bb) Provides evidence demonstrating that the firm meets the conditions outlined above for either the current rating for its senior unsubordinated debt, or compliance with the ratio comparing total liabilities to net worth, or the ratio comparing net income to total liabilities as outlined in Section E.4.e.(1)(a) above, and the tangible net worth requirements in Section E.4.e.(1)(b) above and assets as outlined in Section E.4.e.(1)(c) above.

ii. A copy of the independent certified public accountant's unqualified opinion of the permittee's financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements shall receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The Department may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Department deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the test. If the Department does not allow use of the test, the permittee shall provide alternate financial assurance that meets the requirements of this section.

iii. If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the permittee satisfies either the ratio comparing total liabilities to net worth in Section E.4.e.(1)(a)ii. above, or the ratio comparing net income to total liabilities in Section E.4.e.(1)(a)iii. above that is different from data in the audited financial statements in the independent certified public accountant's financial statements for the latest complete fiscal year, referred to in Section E.4.e.(2)(a)ii. above, or any other audited financial statement or data filed with the SEC, then a special report from the permittee's independent certified public accountant to the permittee is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

iv. If the chief financial officer's letter provides a demonstration that the firm has assured for environmental obligations as provided in paragraph E.4.e.(1)(b)ii. above, then the letter shall include a report from the independent certified public accountant that verifies that all of the environmental obligations covered by a financial test have been recognized as liabilities on the audited financial statements, how these obligations have been measured and reported, and that the tangible net worth of the firm is at least \$10 million plus the amount of any guarantees provided.

(b) A permittee shall place all records and reports required by this section in the operating record and notify the Department that these items have been placed in the operating record before the initial receipt of waste for closure and post-closure care, and within 120 days after a corrective action remedy has been selected in accordance with this regulation.

(c) After all required records and reports have been placed in the operating record, the permittee shall annually update the information and place updated information in the operating record within 90 days following the close of the permittee's fiscal year. The Department may allow an additional 45 days for a permittee who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information shall encompass all required reports and records.

(d) The record keeping and reporting requirements are no longer applicable when the permittee:

i. Substitutes alternate financial assurance that is not subject to the Record keeping and reporting requirements; or,

ii. Is released from the requirements of providing financial assurance for closure, post-closure, and corrective action pursuant to this regulation.

(e) If the requirements of the financial component in Section E.4.e.(1) above are no longer met, within 120 days following the end of the facility's fiscal year, the permittee shall:

i. Obtain alternative financial assurance that meets the requirements of this section;

ii. Place the required submissions for that assurance in the operating record; and,

iii. Notify the Department that the permittee no longer meets the criteria of the financial test and that alternate assurance has been obtained.

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(f) Based on a reasonable belief that the requirements of the financial component are no longer met, at any time the Department may require the submittal of reports of its financial condition in addition to or including current financial test documentation pursuant to this regulation. If the Department finds that the permittee no longer meets the requirements of the financial component, the permittee shall provide alternate financial assurance that meets the requirements of this regulation.

(3) Calculation of costs to be assured. When calculating the current cost estimates for closure, post-closure care, corrective action, or the sum of the combination of such costs to be covered, and any other environmental obligations assured by a financial test pursuant to this regulation, the permittee shall include cost estimates required for municipal solid waste management facilities under this part, as well as cost estimates required for the following environmental obligations, if it assures them through a financial test: obligations associated with UIC facilities under 40 CFR part 144, petroleum underground storage tank facilities under 40 CFR part 280, PCB storage facilities under 40 CFR part 761, and hazardous waste treatment, storage, and disposal facilities under 40 CFR parts 264 and 265.

f. Local Government Financial Test. A permittee that satisfies the requirements of Sections E.4.f.(1) through (3) may demonstrate financial assurance up to the amount specified in Section E.4.f.(4) below:

(1) Financial Component.

(a) The permittee shall satisfy one of the following two conditions:

i. If the permittee has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, it shall have a current rating of Aaa, Aa, A, or Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued by Standard and Poor's on all such general obligation bonds; or,

ii. The permittee shall satisfy each of the following financial ratios based on the permittee's most recent audited annual financial statement:

(aa) A ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05; and,

(bb) A ratio of annual debt service to total expenditures less than or equal to 0.20.

(b) The permittee shall prepare its financial statements in conformity with Generally Accepted Accounting Principles for governments and have its financial statements audited by an independent certified public accountant (or appropriate State agency).

(c) A local government is not eligible to assure its obligations under the local government financial test if it:

i. Is currently in default on any outstanding general obligation bonds; or,

ii. Has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's; or,

iii. Operated at a deficit equal to 5% or more of total annual revenue in each of the past two fiscal years; or,



iv. Receives an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant (or appropriate State agency) auditing its financial statement as required in Section E.4.f.(1)(b) above. However, the Department may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Department deems the qualification insufficient to warrant disallowance of use of the test.

(d) The following terms used in this Paragraph are defined as follows:

- i. "Deficit" equals total annual revenues minus total annual expenditures;
- ii. "Total revenues" include revenues from all taxes and fees but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by local government on behalf of a specific third party;
- iii. "Total expenditures" include all expenditures excluding capital outlays and debt repayment;
- iv. "Cash plus marketable securities" is all the cash plus marketable securities held by the local government on the last day of a fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions; and,
- v. "Debt service" is the amount of principal and interest due on a loan in a given time period, typically the current year.

(2) Public Notice Component. The local government permittee shall place a reference to the closure and post-closure care costs assured through the financial test into its next comprehensive annual financial report (CAFR) after the effective date of this section or prior to the initial receipt of waste at the facility, whichever is later. Disclosure shall include the nature and source of closure and post-closure care requirements, the reported liability at the balance sheet date, the estimated total closure and post-closure care cost remaining to be recognized, the percentage of landfill capacity used to date, and the estimated landfill life in years. A reference to corrective action costs shall be placed in the CAFR not later than 120 days after the corrective action remedy has been selected in accordance with this regulation. For the first year the financial test is used to assure costs at a particular facility, the reference may instead be placed in the operating record until issuance of the next available CAFR if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget. For closure and post-closure costs, conformance with Government Accounting Standards Board Statement 18 assures compliance with this public notice component.

(3) Record Keeping and Reporting Requirements.

(a) The local government permittee shall place the following items in the facility's operating record and submit a copy to the Department:

- i. A letter signed by the local government's chief financial officer that:
  - (aa) Lists all the current cost estimates covered by a financial test as required;
  - (bb) Provides evidence and certifies that the local government meets the conditions of either the required rating for general obligation bonds or satisfies the required financial ratios pursuant to Section E.4.f.(1)(a) above, and financial statements and audits as required in Section E.4.f.(1)(b) above, and meets the criteria outlined in Section E.4.f.(1)(c) above regarding eligibility to assure its obligations; and,

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(cc) Certifies that the local government meets the requirements established for public notification pursuant to Section E.4.f.(2) above, and the calculation of costs to be assured pursuant to Section E.4.f.(4) below;

ii. The local government's independently audited year-end financial statements for the latest fiscal year (except for local governments where audits are required every two years and where unaudited statements may be used in years when audits are not required), including the unqualified opinion of the auditor who shall be an independent, certified public accountant or an appropriate State agency that conducts equivalent comprehensive audits;

iii. A report to the local government from the local government's independent certified public accountant (CPA) or the appropriate State agency based on performing an agreed upon procedures engagement relative to the financial ratios required by Section E.4. f.(1)(a)ii. of this section, if applicable, and the requirements for financial statements pursuant to Section E.4.f.(1)(b), and assuring obligations outlined in Sections E.4.f.(1)(c)iii. and iv. The CPA or State agency's report should state the procedures performed and the CPA or State agency's findings; and,

iv. A copy of the comprehensive annual financial report (CAFR) used to comply with the public notice requirements in Section E.4.f.(2) above or certification that the requirements of General Accounting Standards Board Statement 18 have been met.

(b) The record keeping and reporting requirements outlined in Section E.4.f.(3)(a) above shall be placed in the facility operating record and a copy submitted to the Department:

i. In the case of closure and post-closure care, prior to the initial receipt of waste at the facility; or,

ii. In the case of corrective action, not later than 120 days after the corrective action remedy is selected in accordance with the requirements of this regulation.

(c) After the initial placement of the items in the facility's operating record, the local government permittee shall update the information and place the updated information in the operating record and submit a copy to the Department within 180 days following the close of the permittee's fiscal year.

(d) The local government permittee is no longer required to meet the record keeping and reporting requirements outlined in Section E.4.f.(3) above when:

i. The permittee substitutes alternate financial assurance as specified in this section; or,

ii. The permittee is released from the requirements of this section in accordance with this regulation.

(e) A local government shall satisfy the requirements of the financial test at the close of each fiscal year. If the local government permittee no longer meets the requirements of the local government financial test it shall, within 210 days following the close of the permittee's fiscal year, obtain alternative financial assurance that meets the requirements of this section, place the required submissions for that assurance in the operating record, and notify the Department that the permittee no longer meets the criteria of the financial test and that alternate assurance has been obtained.

(f) The Department, based on a reasonable belief that the local government permittee may no longer meet the requirements of the local government financial test, may require additional reports of financial condition from the local government at any time. If the Department finds, on the basis of such reports or other information, that the permittee no longer meets the requirements of the local government financial test, the local government shall provide alternate financial assurance in accordance with this section.

(4) Calculation of Costs to be Assured. The portion of the closure, post-closure, and corrective action costs for which a permittee can assure under this Section is determined as follows:

(a) If the local government permittee does not assure other environmental obligations through a financial test, it may assure closure, post-closure, and corrective action costs that equal up to 43% of the local government's total annual revenue.

(b) If the local government assures other environmental obligations through a financial test, including those associated with UIC facilities under 40CFR144.62, petroleum underground storage tank facilities under 40CFR280, PCB storage facilities under 40CFR761, and hazardous waste treatment, storage, and disposal facilities under 40CFR264 and 265, it shall add those costs to the closure, post-closure, and corrective action costs it seeks to assure under this Item.

g. Local Government Guarantee. A permittee may demonstrate financial assurance for closure, post-closure, and corrective action, as required in this regulation, by obtaining a written guarantee provided by a local government. The guarantor shall meet the requirements of the Local Government Financial Test in Section E.4.f. above, and shall comply with the terms of a written guarantee.

(1) Terms of the Written Guarantee. The guarantee shall be effective before the initial receipt of waste, in the case of closure, post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with this regulation. The guarantee shall provide the following:

(a) If the permittee fails to perform closure, post-closure care, and/or corrective action of a facility covered by the guarantee, the guarantor shall:

i. Perform, or pay a third party to perform, closure, post-closure care, and/or corrective action as required; or,

ii. Establish a fully funded trust fund as specified in Section E.4.a. above in the name of the permittee.

(b) The guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the permittee and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the permittee and the Department, as evidenced by the return receipts.

(c) If a guarantee is canceled, the permittee shall, within 90 days following receipt of the cancellation notice by the permittee and the Department, obtain alternate financial assurance, place evidence of that alternate financial assurance in the facility operating record, and notify the Department. If the permittee fails to provide alternate financial assurance within the 90 day period, the guarantor shall provide that alternate assurance within 120 days following the guarantor's notice of cancellation, place evidence of the alternate assurance in the facility operating record, and notify the Department.

(2) Record Keeping and Reporting.

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(a) The permittee shall place a certified copy of the guarantee along with the items required in Section E.4.f.(3) above, into the facility's operating record and submit a copy to the Department before the initial receipt of waste in the case of closure, and post-closure care, or no later than 120 days after the corrective action remedy has been selected in accordance with this regulation.

(b) The permittee is no longer required to maintain the records specified in Section E.4.g.(2) above for the guarantee when:

i. The permittee substitutes alternate financial assurance as specified in this section;  
or,

ii. The permittee is released from the requirements of this section pursuant to the requirements for proper closure, completion of the post-closure care period, or completion of the corrective action remedy.

(c) If a local government guarantor no longer meets the requirements of the Local Government Financial Test in Section E.4.f. above, the permittee shall, within 90 days, obtain alternative assurance, place evidence of the alternate assurance in the facility operating record, and notify the Department. If the permittee fails to obtain alternate financial assurance within that ninety (90) day period, the guarantor shall provide that alternate assurance within the next 30 days.

h. State Approved Mechanism. A permittee may satisfy the requirements of this section by obtaining any other mechanism that meets the criteria for the language of the mechanism as specified in Section E.4.k. below, and that is approved by the Department.

i. Certificates of Deposit.

(1) A permittee may demonstrate financial assurance, wholly or in part, by assigning all rights, title and interest of a Certificate of Deposit (Certificate) to the Department, conditioned so that the permittee shall comply with the closure, post-closure care, or corrective action plan filed for the site. The amount of the Certificate shall be in an amount at least equal to the current closure, post-closure care, or corrective action cost estimate, whichever is applicable, for the site for which the permit application has been filed or any part thereof not covered by other financial assurance mechanisms. The permittee shall maintain the Certificate until proper final closure, post-closure care, or corrective action is completed. The original assignment of the Certificate of deposit shall be submitted to the Department to prove that the Certificate has been obtained and meets the requirements of this section. The Certificate shall be in the sole name of the South Carolina Department of Health and Environmental Control and shall be issued by a financial institution that is insured by the Federal Deposit Insurance Corporation or Federal Savings and Loan Insurance Corporation. The Certificate may not have a maturity date of less than six (6) months. Those Certificates with a maturity date of less than one year shall provide for automatic renewal. In those instances where renewal is not automatic, the permittee shall renew or replace the instrument no less than 60 days before the maturity date.

(2) In addition to the certificate of deposit, the owners/operators shall establish a standby trust fund to receive payments using a trustee that has the authority to act as a trustee and that is regulated and examined by a Federal or State agency. The text of the standby trust fund shall be provided by the Department.

(3) The permittee shall be entitled to demand, receive, and recover the interest and income from the Certificate as it becomes due and payable as long as the market value of the Certificate plus any other mechanisms used continue to at least equal the amount of the estimated current closure, post-closure care, or corrective action cost.

(4) Whenever the approved closure or post-closure maintenance care cost estimates or corrective action cost estimate increases to an amount greater than the amount of the certificate of deposit, the permittee shall, within 60 days of the increase, cause the amount of the certificate of deposit to be increased to an amount at least equal to the new estimate or obtain other financial assurance pursuant to this regulation to cover the increase. Anytime the cost estimate decreases, the permittee may reduce the amount of the certificate of deposit to the new estimate following written approval by the Department. The permittee shall submit a certificate of deposit and assignment reflecting the new cost estimate within 60 days of the change in the cost estimate.

(5) The Department will return the original assignment and certificate of deposit, if applicable, to the issuing institution for termination when the permittee substitutes acceptable alternate financial assurance or if the permittee is no longer required to maintain financial assurance in accordance with this regulation.

j. Use of Multiple Financial Mechanisms. A permittee may demonstrate financial assurance for closure, post-closure, and corrective action, as required in this regulation by establishing more than one financial mechanism per facility except that mechanisms guaranteeing performance rather than payment, may not be combined with other instruments. The mechanisms shall be as specified in Sections E.4.a., b., c., d., e., f., g., h. and i., except that financial assurance for an amount at least equal to the current cost estimate for closure, post-closure care, and/or corrective action may be provided by a combination of mechanisms rather than a single mechanism.

k. The language of the mechanisms listed in Sections E.4. a., b., c., d., e., f., g., h. and i. of this section shall ensure that the instruments satisfy the following criteria:

(1) The financial assurance mechanisms shall ensure that the amount of funds assured is sufficient to cover the costs of closure, post-closure care, and corrective action for known releases when needed;

(2) The financial assurance mechanisms shall ensure that funds will be available in a timely fashion when needed;

(3) The financial assurance mechanisms shall be obtained by the permittee by the effective date of these requirements or prior to the initial receipt of solid waste, whichever is later, in the case of closure and post-closure care, and no later than 120 days after the corrective action remedy has been selected in accordance with the requirements of this regulation until the permittee is released from the financial assurance requirements pursuant to this regulation;

(4) The financial assurance mechanisms shall be legally valid, binding, and enforceable under State and Federal law.

5. Discounting. The Department may allow discounting of closure cost estimates, post-closure cost estimates, and/or corrective action costs up to the rate of return for essentially risk free investments, net of inflation, under the following conditions:

a. The Department determines that the cost estimates are complete and accurate and the permittee has submitted a statement from a S.C. Registered Professional Engineer so stating;

b. The Department finds the facility in compliance with applicable and appropriate permit conditions;

c. The Department determines that the closure date is certain and the permittee certifies that there are no foreseeable factors that will change the estimate of site life; and,

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d. Discounted cost estimates shall be adjusted annually to reflect inflation and years of remaining life.

### 6. Incapacity of Permittee or Financial Institution.

a. A permittee shall notify the Department by certified mail within 10 days of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the permittee as debtor.

b. In the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee or institution, that issues a surety bond, letter of credit, certificate of deposit, or insurance policy pursuant to this regulation, the permittee shall be deemed in violation of the financial assurance requirements. The permittee shall establish with Department approval other financial assurance within 60 days of such event.

### 7. Default by Permittee.

a. The Department may take possession of a financial assurance fund if the permittee fails to:

(1) Complete closure or post-closure maintenance care in accordance with the Department approved facility plan;

(2) Complete corrective action; or,

(3) Renew or provide alternate acceptable financial assurance as required.

b. Prior to taking possession of a financial assurance funds, the Department shall:

(1) Issue a notice of violation or order alleging that the permittee has failed to perform closure or post-closure care in accordance with the closure or post-closure care plan or permit requirements; and,

(2) Provide the permittee seven days notice and an opportunity for a hearing.

## F. Permit Applicant Requirements.

1. Disclosure. Prior to issuance of a Department permit for Classes One, Two, and Three landfills, a disclosure statement, pursuant to S.C. Code Section 44-96-300 and in a format approved by the Department, shall be submitted to the Department. The Department may accept one disclosure statement for multiple facility permit applicants. This requirement shall not apply if the applicant is a local government or a region comprised of local governments. The disclosure statement shall contain the following information with regard to the applicant and his responsible parties:

a. The full name, business address, and social security number of all responsible parties;

b. A description of the experience and credentials, including any past or present permits or licenses for the collection, transportation, treatment, storage, or disposal of solid waste issued to or held by the applicant within the past five years;

c. A listing and explanation of all convictions by final judgment of a responsible party in a state or federal court, whether under appeal or not, of a crime of moral turpitude punishable by a fine of five thousand dollars (\$5,000.00) or more or imprisonment for one year or more, or both, within five years immediately preceding the date of the submission of the permit application;

d. A listing and explanation of all convictions by final judgment of a responsible party in a state or federal court, whether under appeal or not, of a criminal or civil offense involving a violation of an environmental law punishable by a fine of five thousand dollars (\$5,000.00) or more or imprisonment for one year or more, or both, in a state or federal court within five years of the date of submission of the permit application;

e. A listing and explanation of the instances in which a disposal facility permit held by the applicant was revoked by final judgment in a state or federal court, whether under appeal or not, within five years of the date of submission of the permit application;

f. A listing and explanation of all adjudications of the applicant for having been in contempt of any valid court order enforcing any federal environmental law or any state environmental law relative to the activity for which the permit is being sought, within five years of the date of submission of the permit application; and,

g. If a responsible party of an applicant is a chartered lending institution or a publicly held corporation reporting under the Federal Securities and Exchange Act of 1934 or a wholly-owned subsidiary of a publicly held corporation reporting under the Federal Securities and Exchange Act of 1934, the information required under S.C. Code Section 44-96-300(A)(6), such responsible party shall submit to the Dept. reports covering its structure and operations as required by the chartering body or the Federal Securities and Exchange Commission. The Department is authorized to require a responsible party to provide such additional information to the Department as is reasonably necessary to make the determinations provided for in S.C. Code Section 44-96-300.

## 2. Permittee Requirements.

a. The permittee is required to notify the Department by certified mail within 10 days of any of the following conditions:

(1) Commencing a voluntary or involuntary proceeding in bankruptcy, naming the permittee as debtor;

(2) The sale of the holder of the permit or approval;

(3) The sale of the permitted or approved facility; or,

(4) The dissolution of the holder of the permit or approval.

### b. Transfer of Ownership.

(1) The Department may, upon written request, transfer a permit to a new permittee where no other change in the permit is necessary. The proposed new owner of a permitted landfill shall, prior to the scheduled change in ownership, submit to the Department:

(a) Documentation of the new owner's name and address.

(b) Documentation of the name and address of the party responsible for the operation and maintenance of the landfill, if different from the owner.

(c) A written agreement signed by both parties indicating the intent to change ownership or operating responsibility of the facility. The agreement shall contain:

i. A specific date for the transfer of permit responsibility; and,

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ii. A statement that the new permittee will operate the landfill in accordance with the existing permit in effect at the time of transfer.

(d) Documentation of financial assurance as required in Part I, Section E. of this regulation. The previous owner shall maintain financial assurance responsibilities until the new owner can demonstrate satisfactory compliance with Part I, Section E. of this regulation.

(e) A Disclosure Statement for the new owner pursuant to Subsection F.1. above.

(2) Upon approval of all items required by Subsection F.2.b.(1) above, the Department shall transfer the permit from the original owner of the landfill to the new owner.

(3) A request for a permit modification shall be submitted with the transfer of ownership request, if the landfill will not be operated in accordance with the approved plans. The permit modification shall be in accordance with all provisions of this regulation.

(4) The new owner shall submit legal documentation of the transfer of ownership of the landfill within 15 days of the actual transfer.

G. Severability. Should any regulation, paragraph, sentence, clause or phrase of this regulation be declared unconstitutional or invalid for any reason, the remainder of this regulation shall not be affected thereby.

H. Violations and Penalties. A violation of this regulation or violation of any permit, order, or standard subjects the person to the issuance of a Department order, or a civil or criminal enforcement action in accordance with S.C. Code Section 44-96-450. In addition, the Department may impose reasonable civil penalties not to exceed ten thousand dollars (\$10,000.00) for each day of violation of the provisions of this regulation, including violation of any order, permit or standard.

### I. Appeals.

1. A Department decision involving the issuance, denial, renewal, suspension, revocation or request for a variance of a permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23. Any person to whom an order is issued may appeal it pursuant to applicable law.

2. Determinations of Need and Consistency pursuant to Part I, Section D.1. may be appealed at the time such determinations are issued and may not be raised as part of an appeal of a decision on the permit.

J. Variances. Any request for variances to these rules and regulations shall be directed in writing to, and will be considered by, the Department on an individual basis.



## Part II. Permit-by-rule: Short Term Structural Fill.

## A. General Provisions. Structural fill activities shall comply with the requirements in this Part.

1. Structural fill activity shall be deemed to have a permit for disposal of the items listed below when the site is registered with the Department, and designed, constructed and operated in compliance with the requirements in this Part. Written approval from the Department to operate under the Permit-by-rule shall be obtained prior to filling. Approval for structural fill areas may be issued per tract of land and no less than 500 feet from a present or former fill area on the same tract of land under the same ownership, unless otherwise approved by the Department.

2. Structural fill may not provide a sound structural base for building purposes.

3. Structural fill activity in rights-of-way directly related to road construction under contract with the S.C. Department of Transportation shall be exempt from this Part.

4. Department approved structural fill activity shall:

a. Have a proposed life of twelve (12) months or less;

b. Occupy one (1) acre in size or less;

c. Use only those items listed below that have not been contaminated by hazardous constituents listed in the S.C. Hazardous Waste Management Regulations 61-79.261 (e.g., pesticides), petroleum products, or painted with lead-based paint:

(1) Hardened concrete (may include rebar);

(2) Hardened asphaltic concrete;

(3) Bricks;

(4) Masonry blocks; and,

(5) Land-clearing debris; and,

d. Be consistent with the South Carolina Coastal Zone Management Plan if the fill area is located in the coastal zone as defined in SC Code Section 48-39-10.B.

5. Should the Department have sufficient reason to believe that environmental and/or health problems are associated with an area that contains structural fill material, monitoring (including groundwater, surface water, and air quality monitoring) may be required by the Department to ensure protection of the environment.

## B. Permit-by-rule Registration Requirements.

1. Prior to engaging in structural fill activity, the landowner or landowner's agent shall receive written approval from the Department to operate under the Permit-by-rule for a specific site. "Agent" means one that acts for or as a representative of another. To request approval and register a site, a completed registration form provided by the Department and all information required by this Part shall be submitted to the Department. The Department will process the administratively complete registration and notify the owner/agent in writing if the site is approved for structural fill activity under the Permit-by-rule.

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2. All required information submitted to the Department shall be complete and accurate. The landowner and agent shall sign the registration form and the following certification: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached document; and, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

3. To request approval to operate under the Permit-by-rule, three copies of the following documents shall be submitted to the Department:

- a. A registration form provided by the Department;
- b. A current county map showing the location of the proposed fill area;
- c. Proof of ownership or control of the property;
- d. Site information to include:

(1) A written description of the location of the area that will accept the fill material including road names/numbers;

(2) The source(s) supplying the fill material;

(3) The anticipated time frame for filling the area;

(4) The size of the area to be filled;

(5) The maximum volume the fill area will be capable of receiving; and,

(6) The latitude and longitude coordinates of the proposed fill area;

e. An explanation of how the waste will be compacted and the cover applied; and,

f. Other pertinent information as deemed appropriate by the Department.

### C. Location Restrictions.

1. Buffers. The boundary of the fill area shall not be located within:

a. 100 feet of any property line. Variances may be requested and granted on a case-by-case basis upon submittal of written consent from the adjacent landowner(s);

b. 200 feet of any residence, school, day-care center, church, hospital and publicly owned recreational park area;

c. 200 feet of any surface water that holds visible water for greater than six consecutive months, excluding ditches, sedimentation ponds, and other operational features on the site;

d. 100 feet of any drinking water well. A greater buffer may be required for compliance with the Department's Bureau of Water requirements;

e. The right-of-way of underground or above ground utility equipment or structures, i.e., water lines, sewer lines, storm drains, telephone lines, electric lines, etc., without the written approval of the impacted utility; and,

f. 50 feet of any wetlands, unless the permittee has obtained the permits and/or authorizations required by all other state and federal laws and regulations for the impact of such wetlands.

2. Fill areas shall be adjacent to or have direct access to roads which are of all weather construction and capable of withstanding anticipated load limits.

D. Design Requirements for Structural Fill.

1. The fill area shall meet the following standards, unless otherwise approved in writing by the Department:

a. Fill areas located in the 100-year floodplain shall not restrict the flow of the 100-year flood;

b. The fill area shall be consistent with the South Carolina Coastal Zone Management Plan if the site is located in the coastal zone as defined in SC Code Section 48-39-10.B.;

c. Access to the structural fill area shall be controlled through the use of fences, gates, berms, natural barriers, or other means to prevent promiscuous dumping and unauthorized access; and,

d. Fill material shall not be placed in water. If the fill area becomes inundated with water, all water shall be removed before adding additional fill material.

2. Procedures shall be established for maintaining conditions that are unfavorable for the habitation and production of vectors.

E. Operating Criteria. The following operational requirements shall apply to all structural fill activity, unless otherwise approved in writing by the Department:

1. The fill area shall accept only those waste items listed below that have not been painted with lead-based paint, and have not been contaminated by hazardous constituents listed in the S.C. Hazardous Waste Management Regulations 61-79.261 (e.g., pesticides), or petroleum products, and that have been reduced in size to less than or equal to one ( $\leq 1$ ) cubic yard pieces with no side exceeding three feet in length:

a. Hardened concrete (may include rebar);

b. Hardened asphaltic concrete;

c. Bricks;

d. Masonry blocks; and,

e. Land-clearing debris.

2. The fill area shall have an attendant on duty any time fill material is being received.

3. Unauthorized wastes shall be removed from the fill area to an approved facility within 48 hours of receipt.

4. The fill area shall be staked prior to receipt of fill material, and the stakes shall remain until the fill area is properly closed.

5. The unloading of fill material shall be restricted to the working face of the fill area.

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6. The working face of the fill area shall be confined to as small an area as the equipment can safely and efficiently operate. The slope shall not exceed 33%.

7. The fill material shall be compacted and a cover consisting of a uniform layer of soil or other suitable material, or both, acceptable to the Department, no less than six inches in depth shall be used to cover all exposed waste material at least every 30 days.

8. Open burning at fill areas shall be prohibited.

9. The fill area shall be maintained and operated in a manner that protects the established water quality standards of the surface waters and ground waters.

10. Dust, odors, fire hazards, litter and vectors shall be effectively controlled so they do not constitute nuisances or hazards.

### F. Closure.

1. Within 12 months of the Department's issuance of approval to operate under the Permit-by-rule, the owner/agent of the filled area shall:

a. Apply a minimum two-foot thick final earth cover with at least a 1%, but not greater than 4% surface slope, graded to promote positive drainage. The side slope cover shall not exceed three horizontal feet to one vertical foot, i.e., a 3:1 slope;

b. Either:

(1) Begin construction of the foundation of a building project; or,

(2) Seed the finished surface of the filled area with native grasses or other suitable ground cover to establish and maintain into the second growing season a 75% or greater permanent vegetative cover with no substantial bare spots;

c. Using a form approved by the Department, record with the appropriate Register of Deeds a notation in the record of ownership of the property - or some other instrument which is normally examined during title search - that will in perpetuity notify any potential purchaser of the property that the land or a portion thereof has been structurally filled and list the specific items used for filling, e.g., clean brick; and,

d. Submit to the Department a copy of the document in which the notation required by Section F.1.c. above was placed.

2. Upon the Department's receipt of the document defined in Section F.1.c. above, the owner/agent's approval to fill under the Permit-by-rule for this site shall be terminated.

3. If the Department has sufficient reason to believe that there are environmental problems associated with the fill area, the owner/agent shall submit for Department review and approval, a corrective action plan and a schedule of compliance for implementing the plan.

Part III. Class One Landfills - General Permit for Disposal of Land-Clearing Debris and Yard Trash

A. General Permit.

1. The Department may issue a general permit for solid waste landfills used solely for the disposal of trees, stumps, wood chips, and yard trash that is generated from land-clearing activities, excluding agricultural and silvicultural operations when generation and disposal are on site. These landfills shall be limited to filling to grade, of low areas or depressions in the surface of the earth to include permitted mining sites for an aesthetic benefit or property enhancement. Beneficial fill does not provide a sound structural base for building purposes, but does provide an aesthetic benefit.

2. The general permit shall outline the following:

- a. Submittal requirements;
- b. Design criteria;
- c. Operational criteria;
- d. Monitoring, if applicable; and,
- e. Closure and corrective action requirements, if applicable.

3. The general permit, pursuant to this Part, may be issued, modified, revoked and reissued, or terminated in accordance with applicable requirements of this regulation and subject to the terms and conditions in this regulation.

4. The Department shall publish a notice of any general permit issued, modified, revoked, or reissued.

B. General Provisions.

1. Landfills approved to operate under the General Permit shall be known as Class One landfills.

2. Class One landfills shall be consistent with the State and Region/County Solid Waste Management Plans, local zoning, land use and other applicable ordinances.

3. A Class One Landfill shall be covered under the State's general permit if it provides proper notification of intent to the Department as outlined in the general permit, and if constructed and operated in compliance with the requirements established by the permit and this regulation.

4. Prior to submittal to the Department of a written Notice of Intent, pursuant to Section C. below, the owners/operator seeking coverage under the general permit shall:

a. Publish a notice informing the public of the intent to operate under the General Permit. All notices shall be published once in a newspaper of general circulation in the area of the proposed landfill project and contain the following:

- (1) Name and address of the applicant;
- (2) The location of the proposed activity to include the county, roads and crossroads;
- (3) The nature of the proposed activity;

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- (4) A description of the proposed site or a description of the proposed major modification;
- (5) An explanation of the type(s) of waste that will be accepted;
- (6) The Department's address and contact name for submittal of comments and inquires;
- (7) The approximate tonnage/year expected for disposal at the landfill; and,
- (8) The proposed life of the landfill.

b. Submit to the Department:

- (1) A written Notice of Intent, pursuant to Section C. below, to be covered by the general permit on a form approved by the Department;
- (2) An affidavit of publication in a newspaper for the public notice required in Section B.4.a. above;
- (3) The names and addresses of the owners of real property as they appear on the county tax maps as contiguous landowners of the proposed permit area; and,
- (4) A disclosure statement pursuant to Part I, Section F.1.

5. The Department will notify by certified mail, return receipt requested, all adjoining landowners of receipt of the Intent to Operate under the General Permit.

6. Written Department approval to operate under the General Permit shall be received prior to operation of a Class One landfill.

7. Upon a determination by the Department and written notification that the landfill poses an actual or potential threat to human health or the environment, the Department may require the permittee to implement corrective measures as appropriate.

8. A Class One Landfill's approval to operate under the general permit may be revoked for any of the following reasons:

- a. The facility fails to comply with the conditions of the general permit or this regulation;
- b. Circumstances have changed since the time of the requested approval to operate so that the permittee is no longer appropriately regulated under the general permit, or a temporary or permanent closure of the landfill is necessary; and,
- c. Environmental and/or health problems associated with the landfill are detected by the Department.

9. When an individual solid waste landfill permit is issued to a permittee otherwise subject to the general permit, the applicability of the general permit to that landfill is automatically terminated on the effective date of the individual permit.

10. A landfill excluded from the general permit solely because it already has an individual landfill permit may request that the individual permit be revoked, and that the landfill be covered by the general permit. Upon revocation of the individual permit and approval of the Notice of Intent to operate under the general permit, the general permit shall apply to the landfill.

C. Notice of Intent.

1. Prior to landfilling land-clearing debris under the State's general permit, the permittee shall submit to the Department a Notice of Intent on a form approved by the Department. This Notice shall be accompanied by all information required by the general permit. All required information shall be complete and accurate.

2. The Notice of Intent shall be signed by the landfill applicant. The landowner shall also sign the Notice of Intent, thereby giving authorization for the proposed landfilling activity on said property. Any changes in the written authorization submitted to the Department which occur after the issuance of the Department's approval to operate under the general permit shall be reported to the Department by submitting a copy of the new written authorization.

3. Any person signing a Notice of Intent to landfill under the general information shall also sign the following certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached document; and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

D. Record Keeping and Reporting Requirements. Landfills operating under the General Permit shall submit in a format approved by the Department an annual report for the fiscal year beginning on July 1, and ending on June 30. This report shall be submitted to the Department on or before September 1, and shall identify the actual weight in tons or volume in cubic yards of wastes received per month at the land-clearing debris and yard trash landfill. Any records required by this regulation shall be retained near the facility in an operating record, or in an alternative location approved by the Department for a period of no less than three years.

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### Part IV. Class Two Landfills.

#### A. General Provisions.

1. Applicability. Part IV. establishes minimum criteria for all landfills used for the disposal of: waste as outlined in Appendix I of this regulation; other wastes not listed in Appendix I that demonstrate similar properties to the wastes listed and are approved by the Department on a case-by-case basis; or, wastes that test less than ten (<10) times the maximum contaminant level (MCL) as published in R.61-58, State Primary Drinking Water Regulation current at the time of submittal of the permit application. The testing criteria outlined in Part I., Section C. Waste Characterization shall be used when testing is required. Hereinafter, these landfills will be referred to as Class Two landfills.

2. The siting, design, construction, operation, and closure activities of Class Two landfills shall conform to the standards set forth in this Part as well as applicable requirements in Part I of this regulation.

3. Prior to the construction, operation, expansion or modification of a Class Two landfill, a permit shall be obtained from the Department.

4. Only those items listed in Appendix I of this regulation, approved Appendix I-type waste, and any items specifically listed on the facility's permit issued by the Department may be accepted for disposal at a Class Two landfill. These wastes shall not be contaminated with hazardous constituents listed in the S.C. Hazardous Waste Management Regulations 61-79.261 (e.g., pesticides), or petroleum products. When a waste not listed in Appendix I is approved by the Department for disposal, the landfill's permit will be modified to add the approved waste. A list of Appendix I-type waste will be available from the Department.

5. Class Two landfills shall be consistent with the State and the Region/County Solid Waste Management Plans, local zoning, land use and other applicable ordinances. On-site landfills are not required to demonstrate consistency with the State and Region/County Solid Waste Management Plans.

#### B. Location Restrictions.

1. Buffers. Unless otherwise approved by the Department, the site for a new landfill or expansion of an existing landfill shall meet the following standards:

a. The boundary of the fill area shall not be located within 1,000 feet of any residence, school, day-care center, church, hospital, or publicly owned recreational park area. The Department will determine whether the new landfill or expansion of an existing landfill meets this requirement prior to the publication of the Notice of Intent to File a Permit Application pursuant to Part I, Section D.1 of this Regulation;

b. A landfill located in a 100-year floodplain shall demonstrate that engineering measures have been incorporated into the landfill design to ensure the landfill will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the flood plain, minimize potential for floodwaters coming into contact with waste, or result in the washout of solid waste so as to pose a hazard to human health or the environment;

c. The landfill shall be in compliance with applicable requirements concerning wetlands imposed by the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the Department;

d. Access to the landfill shall be controlled through the use of fences, gates, berms, natural barriers, or other means to prevent promiscuous dumping and unauthorized access;

e. The boundary of the fill area shall not be located within 100 feet of any property line. An exemption may be issued by the Department upon receipt of written approval from adjacent property owners;



f. The boundary of the fill area shall not be located within 200 feet of any surface water that holds visible water for greater than six consecutive months, excluding drainage ditches, sedimentation ponds and other operational features on the site;

g. The boundary of the fill area shall not be located within 100 feet of any drinking water well. A greater buffer may be required for compliance with the Department's Bureau of Water requirements;

h. Waste material shall not be placed on or within any property rights-of-way or 50 feet of underground or above ground utility equipment or structures, i.e., water lines, sewer lines, storm drains, telephone lines, electric lines, natural gas lines, etc., without the written approval of the impacted utility.

2. Airport Safety. These requirements apply to all Class Two landfills permitted/approved for disposal of animal carcasses.

a. Owners/operators of all Class Two landfills located within 10,000 feet of any runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft shall demonstrate that the units are designed and operated so that the Class Two landfill does not pose a bird hazard to aircraft.

b. Owners/operators proposing to site new Class Two landfills and lateral expansions located within a five mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration (FAA).

C. Operation Criteria for Class Two Landfills.

1. Owners/operators of all Class Two landfills shall implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in R.61-79 Hazardous Waste Management Regulations, Part 261, polychlorinated biphenyls (PCB) wastes as defined in Resource Conservation and Recovery Act (RCRA), Part 761, and wastes not specifically allowed by the permit. This program shall include, at a minimum:

a. Inspections of all incoming loads when deposited and prior to compaction unless the permittee takes other steps to ensure that incoming loads do not contain regulated hazardous wastes, PCB wastes, or wastes not specifically allowed by the permit;

b. Records of unacceptable waste to include waste quantity and description and generator information;

c. Training of facility personnel to recognize wastes not specifically allowed by the permit, regulated hazardous waste and PCB wastes; and,

d. Notification of the Department within 72 hours if the operator suspects that a regulated hazardous waste or PCB waste has been discovered at the facility.

2. The Class Two landfill shall, prior to receipt of any waste materials that are not specifically listed in the permit application, submit for Department approval a characterization of the waste materials to determine the suitability for disposal in the landfill unless the Department grants an exemption for like materials.

3. Unless otherwise approved by the Department:

a. Unauthorized wastes shall be removed from the working face prior to cover or at the end of the working day, whichever occurs first, and placed into an appropriate container; and,

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b. Unauthorized waste shall be removed from the site for proper disposal no less than every 30 days unless otherwise approved by the Department. Putrescible waste shall be removed from the working face, placed in a container, and removed from the site within 72-hours of receipt. The Department may require more frequent removal based on the nature or quantity of other unacceptable waste.

4. The unloading of solid waste intended for disposal in the landfill shall be restricted to the working face of the landfill. Unloading of the waste adjacent to the working face within the permitted boundaries of the landfill may be allowed for the purpose of screening the waste stream.

5. The working face of the landfill shall be confined to as small an area as the equipment can safely and efficiently operate. The slope shall not exceed 33%.

6. Solid waste shall be spread in uniform layers to the extent practical and compacted to its smallest practical volume.

7. A uniform compacted layer of clean earth cover or other suitable cover material acceptable to the Department, no less than six (6) inches in depth shall be placed over all exposed waste material at least every 30 days, unless otherwise approved by the Department. The frequency of cover may be increased or decreased as determined by the Department. More frequent cover may be required by the Department based on the nature of the disposed materials and daily disposal rate in order to address landfill gas generation, odor, leachate formation or any environmental safety and health problems.

8. Open burning at landfills is prohibited.

9. The site shall be maintained and operated in a manner that protects the established water quality standards of the surface waters and ground waters.

10. Dust, odors, fire hazards, litter and vectors shall be effectively controlled so they do not constitute nuisances or hazards.

11. The landfill shall have an attendant on duty at all times the facility is open.

12. Sign Requirements. Signs shall be posted and maintained at the main entrance that:

a. Identify the owner, operator, or a contact person and telephone number in case of emergencies and the normal hours during which the landfill is open to receive waste;

b. State the types of waste that the landfill is permitted to receive; and,

c. Identify the valid SCDHEC Facility Identification Number.

13. Class Two landfills shall install and maintain scales capable of accurately determining the weight of incoming waste streams. Landfills that receive less than 10,000 tons/year are exempt from this requirements.

14. On-site landfills are exempt from Sections 11. 12. and 13. above.

15. Prior to accepting any materials containing asbestos for disposal at the landfill, the operator shall include in its landfill records a copy of the Permission for Disposal letter from the Department. The landfill shall retain these letters for a period of not less than three years and shall make them available to the Department upon request, if applicable.

16. Reporting Requirements.

a. Contingency Plan. Upon implementation of a contingency plan, the Department shall be notified immediately by telephone of actions taken. Written confirmation shall be sent to the Department within 72 hours.

b. Groundwater Monitoring. Reporting requirements as outlined in Subpart E. below.

c. Landfill Operation.

(1) Landfills, with the exception of on-site landfills, shall maintain daily records of:

(a) The actual weight in tons of waste received; and,

(b) The particular grid location of the area currently being used for disposal of solid waste.

(2) Landfills shall submit in a format approved by the Department an annual report for the fiscal year beginning on July 1 and ending on June 30. This report shall be submitted to the Department on or before September 1, and shall include the information outlined below:

(a) The actual weight in tons of wastes received per month;

(b) The county of origin of the waste; and,

(c) A description of the capacity of the landfill used in the previous fiscal year and the remaining permitted capacity. A yearly survey conducted by a S.C. certified land surveyor or engineer may be required by the Department on a case-by-case basis.

d. Any records required by this regulation for Class Two landfills shall be retained near the facility in an operating record, or in an alternative location approved by the Department, for a period of no less than three years.

17. Access to fire equipment and firefighting services shall be provided.

18. Procedures shall be established for maintaining conditions that are unfavorable for the habitation and production of insects, rodents and other pests.

19. A groundwater monitoring system shall be installed in accordance with Section E. below.

20. The landfill shall be adjacent to or have direct access to roads that are of all-weather construction and capable of withstanding anticipated load limits.

21. A gas monitoring system shall be designed and installed as required on a case-by-case basis to ensure that gas generated at the landfill will not create a hazard to health, safety, or property.

D. Design Criteria for Class Two Landfills.

1. The estimated deflected (or settled) bottom elevation of the landfill base grade shall be a minimum of two feet above the seasonal high water table elevation as it exists prior to the construction of the disposal area. The seasonal high water table shall be determined by interpretation of a minimum of 12 months data obtained from a representative number of monitoring wells approved by the Department. In cases where there is insufficient information to support the seasonal high water table elevation determination, additional separation may be required by the Department. The Department will inspect the landfill prior to the initial placement of

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waste in the landfill.

### 2. Drainage control requirements.

a. The disposal area shall be graded with a minimum of a 1% slope so as to divert and minimize run-off into the disposal area of the landfill, to prevent erosion and ponding within the disposal area, and to drain water from the surface of the landfill.

b. Prior to accepting waste, the owners/operators shall design, construct, and subsequently maintain:

(1) A run-on control system to prevent flow onto the active portion of the landfill during peak discharge from a 24-hour, 25-year storm; and,

(2) A run-off control system from the active portion of the landfill to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

c. An appropriate permit from the Department may be required prior to the discharge of any storm waters to surface waters.

### E. Groundwater Monitoring and Corrective Action.

#### 1. General Groundwater Monitoring Requirements.

a. All submittals made to the Department in compliance with this Section shall be signed and stamped by a qualified professional.

b. All Class Two landfills shall implement a groundwater monitoring program as follows:

(1) New Class Two landfills, or lateral expansions of existing Class Two landfills shall submit a groundwater monitoring plan to monitor the entire landfill that meets the requirements of this Section as part of the permit application; and,

(2) Existing Class Two landfills shall, within 180 days of the effective date of this regulation, submit to the Department either a groundwater detection monitoring plan that meets the requirements of this Section, or written notification that the landfill plans to cease accepting waste within one year or less from the effective date of this regulation. Within 180 days of the Department's approval of the groundwater detection monitoring plan, the monitoring system shall be installed at the landfill. Facilities that cease accepting waste within one year of the effective date of this regulation are exempt from the groundwater monitoring requirements outlined herein. Landfills meeting this exemption shall submit a closure plan to the Department within 180 days of the effective date of this regulation. Additional time may be allowed for the installation of the groundwater monitoring system with prior approval from the Department;

(3) Existing Class Two landfills which have been performing groundwater monitoring prior to the requirements of this regulation shall within 90 days of the effective date submit to the Department certification by a qualified professional that the existing groundwater monitoring program meets the intent of this regulation. Any changes necessary to the existing groundwater monitoring system to ensure compliance with this regulation should be discussed in the certification letter.

c. A groundwater monitoring system shall consist of a sufficient number of wells installed at appropriate locations and depths to yield representative groundwater samples from the uppermost aquifer that can determine if contamination has occurred due to a release from the landfill. There shall be a minimum of one well up-gradient and three wells down-gradient of the disposal unit. These wells shall:

(1) Represent the quality of background groundwater that has not been affected by the landfill;  
and,

(2) Represent the quality of groundwater passing from beneath the waste disposal area footprint. The downgradient monitoring system shall be installed as close as practical to the actual disposal area but no further than 150 feet from the actual disposal area unless previously installed with Department approval, and shall ensure detection of any groundwater contamination in the uppermost aquifer.

d. The number, spacing, and depths of the wells in the monitoring network shall be determined based upon site-specific technical information that shall include thorough characterization of:

(1) Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and,

(2) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to: thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

e. Monitoring wells shall be approved by the Department prior to installation and shall be constructed, at a minimum, to the standards established in the South Carolina Well Standards, R.61-71.H.

(1) The permittee shall maintain an operating record that contains documentation of the design, installation, development, and abandonment of any monitoring wells, piezometers and other measurement, sampling, and analytical devices; and,

(2) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be maintained and operated so that they perform to design specifications throughout the life of the monitoring program.

(3) All monitoring wells, piezometers or other environmental sampling locations shall be located by a South Carolina Certified Land Surveyor. For wells, the elevation of the ground surface and the elevation of the top of the well casing shall also be determined to the nearest 0.01 ft above mean sea level.

f. Routine groundwater monitoring shall continue while the facility is performing detection monitoring, assessment or remediation activities.

g. The groundwater monitoring program shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality. A laboratory certified by South Carolina under R.61-81 State Environmental Laboratory Certification Program for the sample preparations and analysis methods employed shall conduct all groundwater analysis required by this regulation.

(1) The permittee shall submit to the Department for review and approval, a sampling and analysis plan outlining procedures and protocols to be used at the facility. The plan shall include procedures and techniques for:

- (a) Sample collection;
- (b) Sample preservation and shipment;
- (c) Analytical procedures;

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- (d) Chain of custody control; and,
- (e) Quality assurance and quality control.

(2) The groundwater monitoring program shall include approved sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure the constituents in groundwater samples. Analytical methods chosen shall have a practical quantitation limit (PQL) that is less than the Maximum Concentration Level (MCL) for those constituents that have a MCL as established by the State Primary Drinking Water Regulation R.61-58. Groundwater samples required by this regulation shall not be field-filtered prior to laboratory analysis.

(3) Groundwater potentiometric elevations shall be measured and recorded for each well prior to initiating sampling procedures each time groundwater is sampled. Groundwater elevations in wells must be measured on the same day to avoid temporal variations in groundwater elevations that could preclude an accurate determination of groundwater flow rate and direction. The permittee must determine the potentiometric surface of each aquifer unit comprising the uppermost aquifer and report the rate and direction of groundwater flow each time groundwater is sampled.

(4) The results and supporting documentation, e.g., field data sheets, laboratory quality assurance /quality control testing, for all groundwater sample analysis taken during detection monitoring shall be submitted to the Department in accordance with the reporting requirements in this Subpart.

h. The permittee shall submit to the Department on or before the anniversary date of issuance of the permit, an annual report for the previous year containing the results of the requirements of this Section. The annual report shall contain the following:

(1) A summary of all analytical testing performed at the site during the previous year, and any applicable data concerning sampling and analysis of monitoring wells at the site;

(2) A determination of the technical sufficiency of the monitoring well network in detecting a release from the facility;

(3) A determination of groundwater elevations, groundwater flow directions and groundwater flow rates as specified in Section E.1.g.(3) above. Groundwater flow directions shall be based upon interpretation of a potentiometric map prepared utilizing the groundwater elevations measured at the site; and,

(4) Recommendations for any changes to the groundwater monitoring system, or any necessary actions to be performed at the site to ensure compliance with the groundwater monitoring requirements.

### 2. Groundwater Detection Monitoring Requirements.

a. Groundwater detection monitoring is required at Class Two solid waste landfills. The detection monitoring program shall include at a minimum, monitoring for the constituents listed in Appendix III.

(1) The Department may require additional groundwater monitoring parameters for routine monitoring based on the chemical and physical nature of the waste stream received by the landfill.

(2) The Department may delete specific monitoring parameters for a Class Two solid waste landfill if it can be shown that the constituent(s) are not reasonably expected to be contained in or derived from the waste contained in the unit. The deletion of specific constituents will be based on the permittee's knowledge of each waste stream disposed of in the facility and the operational controls of the facility.

b. For Class Two solid waste landfills, the detection monitoring frequency for all constituents required by this subpart shall be at least semiannual during the active life of the facility (including closure) and annual during the post-closure period. At least one sample from each well (background and downgradient) shall be collected and analyzed during each sampling event.

c. For Class Two solid waste landfills, the Department may approve an appropriate alternate frequency for repeated sampling and analysis for the constituents listed in Appendix III during the active life (including closure) and the post-closure care period to ensure protection of human health and the environment. The alternative frequency during the active life (including closure) shall be no less than the frequency specified in Section E.2.b. above. The alternative frequency shall be based on consideration of the following factors:

- (1) Lithology of the aquifer and unsaturated zone;
- (2) Hydraulic conductivity of the aquifer and unsaturated zone;
- (3) Groundwater flow rates;
- (4) Minimum distance between upgradient edge of the Class Two solid waste landfill footprint and downgradient monitoring well screen (minimum distance of travel); and
- (5) Resource value of the aquifer.

d. During semiannual groundwater sampling, the two sampling events shall be scheduled approximately six (6) months apart. The submittal of data for one of the sampling events shall meet annual report requirements outlined in E.1.h.. For the other semiannual sampling event, the analytical data only shall be submitted to the Department. In all cases, the groundwater analytical results shall be submitted to the Department within 60 days of sample collection. In cases where the Department has approved an alternate sampling frequency, the Department will approve an appropriate schedule for submittal of groundwater data.

e. If the permittee determines that groundwater concentrations are above the PQL but below the MCL for any constituent listed in Appendix III, at any monitoring well (unless the constituent is being addressed by Section E.3. below) the permittee shall:

- (1) Place a notice in the operating record showing which constituents have shown an exceedance above the PQL; and,
- (2) Provide a notification of the results to the Department in the next regularly scheduled report and provide a discussion on the cause of this result.

f. If the permittee determines that groundwater concentrations are above the MCL, for any constituent listed in Appendix III at any monitoring well, the permittee shall:

- (1) Notify the Department within 14 days of receiving the analytical results;
- (2) Resample the monitoring well(s) in question for the constituent(s) in question to determine the validity of the data within 30 days of receiving the analytical results, unless the Department approves an alternate frequency. If the permittee chooses not to resample, then the initial exceedance(s) of the MCL shall be considered valid;
- (3) Within 14 days of receiving the results of validation sampling required by Section E.2.f.(2) above, place a notice in the operating record and notify the Department of the results of the resampling;

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(4) If resampling does not validate that the results are above applicable levels, return to routine detection monitoring; or,

(5) If resampling does validate the initial exceedance of the MCL, then establish an assessment monitoring program meeting the requirements of Section E.3. within 90 days of receiving the results of validation sampling required by Section E.2.f.(2), except as provided for in Section E.2.g. below.

g. The permittee may demonstrate that a source other than the Class Two landfill caused the contamination or that the concentration resulted from an error in sampling, analysis, or natural variation in groundwater quality. A report documenting this demonstration shall be placed in the operating record after being signed and stamped by a qualified professional and approved by the Department. If a successful demonstration is made and documented, the permittee may continue detection monitoring as specified in this Section. If, after 90 days of completing Section E.2.f.(2) above, a successful demonstration is not made, the permittee shall initiate an assessment monitoring program as required in Section E.3.

### 3. Assessment of Groundwater Impact.

a. Assessment monitoring is required whenever a release has been detected and validated, in accordance with Section E.2.f. above for any constituent listed in Appendix III, unless a successful demonstration has been made in accordance with Section E.2.g. above.

b. Within 90 days of validating an exceedance as outlined in E.2.f.(2), the permittee shall sample all groundwater monitoring wells identified as impacted for all constituents listed in Appendix V. Any additional constituents detected during this sampling shall be added to the assessment program.

c. The permittee shall establish a groundwater protection standard for each constituent detected in the groundwater. The groundwater protection standard shall be:

(a) For constituents for which a MCL has been promulgated under South Carolina R.61-58, State Primary Drinking Water Regulations, the MCL for that constituent;

(b) For constituents for which MCLs have not been promulgated, the drinking water risk-based number recognized by EPA Region IV; or,

(c) For constituents for which the background level is higher than the MCL identified under Section E.3.b.(3)(a) above or risk-based concentration identified under Section E.3.b.(3)(b) above, as applicable, the background concentration.

(d) For any parameter for which a groundwater protection standard cannot be established per E.3.c.(a), (b), or (c) above, the Department, using input from the permittee, will develop an appropriate groundwater protection standard. In establishing this groundwater protection standard, the Department may consider the following provided these criteria meet the intent of the South Carolina Water Classifications and Standards R.61-68:

(1) Multiple contaminants in the groundwater;

(2) Exposure threats to sensitive environmental receptors; and,

(3) Other site-specific exposure or potential exposure to groundwater.

d. The permittee shall submit to the Department for review and approval a groundwater quality assessment plan for characterizing the nature and extent of the release within 90 days of receiving the results of the sampling outlined in Section E.3.b. above. The groundwater quality assessment plan shall:



(a) Ensure that the nature and extent of the release is fully characterized by installing additional monitoring wells, as necessary;

(b) Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with this section;

(c) In cases where contamination is present at the property boundary, take reasonable measures to gain access for offsite sampling;

(d) Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with this section; and,

(e) Contain a detailed schedule for the implementation and completion of the provisions of the plan.

e. Upon completion of assessment activities outlined in this section, the permittee shall initiate an assessment of corrective measures as required by Section E.4.a. below within 90 days.

f. Based upon the outcome of the assessment outlined in this section, the Department may add additional monitoring wells, additional constituents, or additional sampling frequency to the routine detection monitoring program, required by Section E.2.above.

#### 4. Groundwater Remediation.

a. Upon completion of the groundwater quality assessment, the permittee shall evaluate potential corrective actions to address groundwater quality. Based on the outcome of this evaluation, the permittee shall select a remedial action strategy and submit a remedial action plan to be approved by the Department. The remedial action plan shall contain a schedule for the initiation and completion of remedial activities.

b. The remedial action plan shall:

(1) Be protective of human health and the environment;

(2) Attain the groundwater protection standard as specified pursuant to Section E.3.b.(3) above;

(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of constituents into the environment that may pose a threat to human health or the environment;

(4) Consider the long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:

(a) Magnitude of reduction of existing risks;

(b) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;

(c) The type and degree of long-term management required, including monitoring, operation, and maintenance;

(d) Short-term risks that might be posed to the community, workers, or the environment

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during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment;

(e) Time until full protection is achieved;

(f) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;

(g) Long-term reliability of the engineering and institutional controls; and,

(h) Potential need for replacement of the remedy.

(5) Consider the effectiveness of the remedy in controlling the source to reduce further releases based on the extent to which containment practices will reduce further releases; and,

(6) Contain monitoring considerations to prove the effectiveness of the selected remedial action, which may be in addition to those constituents contained in the detection monitoring program.

c. The Department may determine that remediation of a release of a constituent from a Class Two landfill is not necessary if the permittee satisfactorily demonstrates to the Department that:

(1) The groundwater is additionally contaminated by substances that have originated from a source other than the Class Two solid waste landfill and those substances are present in concentrations such that cleanup of the release from the Class Two solid waste landfill would provide no significant reduction in risk to actual or potential receptors; or,

(2) The constituent(s) is present in groundwater that:

(a) Does not currently meet the definition of an underground source of drinking water per South Carolina Water Classifications and Standards R.61-68; and,

(b) Is not hydraulically connected with waters to which the constituents are migrating or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under Section E.3.c. above; or,

(3) Remediation of the release(s) is technically impracticable; or,

(4) Remediation results in unacceptable cross-media impacts.

d. A determination by the Department pursuant to Section E.4.c. above shall not affect the authority of the Department to require the permittee to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

e. During the course of implementing the corrective action, the permittee may be required to take any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to this section. A permittee in determining whether interim measures are necessary shall consider the following factors:

(1) Time required to develop and implement a final remedy;

- (2) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;
- (3) Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- (4) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;
- (5) Weather conditions that may cause hazardous constituents to migrate or be released;
- (6) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and,
- (7) Other situations that may pose threats to human health and the environment.

f. If the permittee determines that compliance with requirements of this section cannot be practically achieved with any currently available methods, the permittee shall:

- (1) Obtain certification of a qualified professional and approval by the Department, that compliance with requirements under Section E.4. cannot be practically achieved with any currently available methods;
- (2) Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and,
- (3) Implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:
  - (a) Technically practicable; and,
  - (b) Consistent with the overall objective of the remedy.

g. Upon completion of the remedy, the permittee shall submit to the Department a certification signed by a qualified professional stating that the remedy has been completed in compliance with the requirements of Section E.4.

h. Upon the Department's approval of the certification required in Section E.4.g. above, the Class Two landfill shall return to detection monitoring as outlined in Section E.2. of this Part.

#### F. Closure and Post-Closure Care.

1. Closure. The termination of disposal operations at a Class Two landfill, whether the entire landfill site or a portion thereof, shall be in compliance with the following requirements.

a. Within one month following the last receipt of solid waste at a site or a part of the site, the application of final cover shall begin. A two foot thick final earth cover is required with at least a 3% but not greater than 5% surface slope, graded to promote positive drainage. The side slope cover shall not exceed three horizontal feet to one vertical foot, i.e., a 3:1 slope. Alternate final cover designs may be submitted for Department review and approval. Unless otherwise approved by the Department, the application of final cover shall be completed within six months of the last receipt of solid waste at the facility. The integrity of the final cover shall be maintained.

b. Testing for certification of cap closure by a South Carolina certified professional engineer shall be done at a rate of four thickness tests per acre as defined by best engineering and construction practices.

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c. The storm water conveyance system for the landfill shall be designed to ensure that the system is capable of handling a 24-hour, 25-year storm event during the active life and post-closure period of the landfill.

d. The finished surface of the disposal area shall be seeded with native grasses or other suitable ground cover within 15 days of the completion of that portion of the landfill.

e. Within 15 days of closure of the entire landfill, the permittee shall post signs at the landfill that state the facility is no longer in operation. On-site landfills are exempt from this requirement.

f. Upon closure of the entire or a portion of the landfill and within 30 days of grading and seeding, pursuant to Section F.1.d. above, a professional engineer licensed in the State of South Carolina shall submit to the Department certification that the landfill has been properly closed in accordance with requirements outlined in this Part and the facility's permit. Upon receipt of certification of closure, the Department will schedule an inspection of the facility. Upon issuance of the Department's final closure approval, the Department's permit for this facility shall be modified to incorporate post-closure activities.

g. Within 30 days of the Department's issuance of final closure approval, the owner shall:

(1) Using a form approved by the Department, record with the appropriate Register of Deeds a notation in the record of ownership of the property - or some other instrument that is normally examined during title search - that will in perpetuity notify any potential purchaser of the property, that the land or a portion thereof, was used for the disposal of solid waste. This notation shall define the final boundaries of the waste disposal area including the latitude and longitude, and identify the type, location, and quantity of solid waste disposed of on the property; and,

(2) Submit to the Department:

(a) A plat showing the final boundaries of the waste disposal area of the closed landfill;  
and,

(b) A copy of the document in which the notation required by Section F.1.g.(1) above has been placed.

### 2. Post-closure Care Requirements.

a. Following closure of each Class Two landfill, the permittee shall conduct post-closure care. Post-closure care shall be conducted for a minimum of 20 years, except as provided under Subsection b.2.below, and consist of at least the following:

(1) Maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover. A 75% or greater vegetative ground cover with no substantial bare spots shall be established and maintained throughout the post-closure period;  
and,

(2) Monitoring the groundwater in accordance with the requirements of Section E of this Part and maintaining the groundwater monitoring system. Groundwater monitoring data shall be submitted to the Department during the post-closure care period within 60 days of sample collection.

b. The length of the post-closure care period may be:

(1) Increased by the Department if the Department determines that the lengthened period is necessary to protect human health and the environment or the facility has groundwater impacts remaining at the end of the post-closure period;

(2) Decreased by the Department if the permittee can provide technical rationale that the decreased post-closure care period is sufficient to protect human health and the environment.

c. The permittee of all Class Two landfills shall prepare a written post-closure plan that includes, at a minimum, the following information:

(1) A description of the monitoring and maintenance activities required in Item 2.a.. above for each Class Two landfill;

(2) Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and,

(3) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements of this regulation. The Department may approve any other disturbance of the containment system if the permittee demonstrates that disturbance of the final cover, or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.

d. Prior to permit issuance, the permittee shall submit to the Department a post-closure plan for review and approval. The post-closure plan shall be updated if any changes occur at the facility which require a deviation from the approved post-closure plan.

e. Following completion of the post-closure care period for each Class Two landfill, the permittee shall submit to the Department certification, signed by a South Carolina registered professional engineer other than the design engineer, verifying that post-closure care has been completed in accordance with the post-closure plan.

G. Financial Assurance Criteria. (See Part I, Section E. of this regulation.)

H. Permit Application Requirements. Prior to the construction, operation, expansion or modification of a Class Two landfill, a permit shall be obtained from the Department.

1. Prior to submitting a permit application to the Department, the applicant shall satisfactorily complete the following:

a. Determination of Need. The applicant shall submit to the Department a request pursuant to Regulation 61-107.17 for determining need of a proposed landfill or landfill expansion, if applicable.

b. Consistency Determination. The applicant shall submit to the Department a request for a determination of consistency with items listed below.

(1) State and County/Region Solid Waste Management Plans. The permit applicant shall demonstrate consistency with the State Solid Waste Management Plan in effect at the time of the request for a determination of consistency. The permit applicant shall demonstrate consistency with the county/region plan in effect at the time of the request for a determination of consistency. Class Two landfills managing solid waste generated solely in the course of normal operation on property under the same ownership or control as the Class Two landfill are not required to demonstrate consistency with the State and host County/Region

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Solid Waste Management Plans;

(2) Local zoning and land-use ordinances. Documentation demonstrating consistency with local zoning and land-use plans, e.g., zoning map, land-use map, and applicable part of the zoning ordinance shall be submitted to the Department; and,

(3) All other applicable local ordinances. Supporting documentation to include a copy of the ordinance shall be submitted to the Department.

(4) Buffer Requirement. The applicant shall demonstrate that it meets the buffer requirement set forth in Part IV, Section B.1.a. of this Regulation at the time of submittal of the demonstration.

c. If the Department's final determination of need is terminated, pursuant to R.61-107.17, all other determinations under Section H.1.a. and b. above will also be void.

2. Administrative Review. Upon satisfactory completion of Section H.1. above, the applicant shall submit to the Department a complete permit application. The applicant shall submit to the Department three copies of the following documents:

a. A completed permit application on a form provided by the Department;

b. A cost estimate for hiring a third party to close the sum of all active areas of the landfill requiring a final cover at any time during the operating life when the extent and manner of its operation would make closure the most expensive, as indicated in the closure plan. This estimate shall be sufficient to ensure satisfactory closure and post-closure maintenance of the landfill and requires Department approval prior to the permittee establishing a financial assurance mechanism pursuant to Part I, Section E. of this regulation;

c. A Disclosure Statement pursuant to Part I, Section F.1;

d. Complete engineering plans, drawings and reports in accordance with Section H.5 below, that are stamped by a Professional Engineer duly licensed to practice in the State of South Carolina; and,

e. The names and addresses of the owners of real property as they appear on the county tax maps as contiguous landowners of the proposed permit area.

f. Tonnage Limit. The applicant shall submit to the Department a request for a determination of a maximum annual tonnage limit.

(1) Prior to the issuance of a permit for a new or expanded commercial Class Two landfill, the Department will approve a maximum annual tonnage limit based on the facility's design capacity, operational capacity, the expected operational life, and the planning area as determined by R.61-107.17, SWM: Demonstration-of-Need; provided, however, that the maximum annual tonnage limit must not exceed the maximum yearly disposal rate pursuant to R. 61-107.17.

(2) Prior to issuance of a permit for a new or expanded noncommercial Class Two landfill, the Department will approve a maximum annual tonnage limit based on the facility's design capacity, operational capacity, and the expected operational life.

3. Public Notice. When the submittal is administratively complete, the Department will notify the applicant in writing. Within 15 days of receipt of notification from the Department, the applicant shall publish notice of the permit application pursuant to Part I, Section D.2. of this regulation, and submit an affidavit of publication of the public notice in the newspaper to the Department.

4. Technical Review. After determining that the permit application is administratively complete, the Department will conduct a Technical Review of the proposed project. The Department's technical review of the permit application will involve the following:

a. Engineering Drawings and Plans. All applications for new Class Two landfills and landfill expansions shall contain engineering drawings that set forth the proposed landfill location, property boundaries, adjacent land uses and construction details. All construction drawings shall be bound and rolled and shall contain the following:

(1) A vicinity plan or map that shows the area within one mile of the property boundaries of the landfill in terms of: the existing and proposed zoning and land uses within that area at the time of permit application; and, residences, public and private water supply wells, known aquifers, surface waters (with quality classifications), access roads, bridges, railroads, airports, historic sites, and other existing and proposed man-made or natural features relating to the facility. The plan shall be on a scale of not greater than 500 feet per inch, unless otherwise approved by the Department;

(2) A site plan on a scale of not greater than 200 feet per inch unless otherwise approved by the Department. This plan shall at a minimum identify the following:

(a) The landfill's property boundaries, as certified by an individual licensed to practice land surveying in the State of South Carolina; off-site and on-site utilities (such as, electric, gas, water, storm, and sanitary sewer systems), right-of-ways and easements; the names and addresses of abutting property owners; the location of soil borings, excavations, test pits, gas venting structures (if applicable), wells, piezometers, environmental and facility monitoring points and devices; benchmarks and permanent survey markers; on-site buildings and appurtenances, fences, gates, roads, parking areas, drainage culverts, and signs; the delineation of the total landfill area including planned staged development of the landfill's construction and operation, and the lateral limits of any previously filled areas; the location and identification of the sources of cover materials; and site topography with five feet minimum contour intervals; and, any other relevant information as necessary for proper operation. The site plan drawings shall show wetlands, property lines, existing wells, water bodies, residences, schools, day-care centers, churches, hospitals, publicly owned recreational park areas and any building on adjoining property;

(b) Location of surface water, dry runs, wetlands, the location of the 100-year floodplain boundaries, and other applicable details regarding the general topography of the landfill site and adjacent properties within one-fourth (1/4) mile of the disposal area;

(c) The area where unauthorized waste will be temporarily stored while it awaits removal for proper disposal; and,

(d) The area where recovered materials will be temporarily stored;

(3) Detailed plans of the landfill that clearly show in plan and cross-sectional views the following: the original, undeveloped site topography before excavation or placement of solid waste; the existing site topography, if different, including the location and approximate thickness and nature of any existing solid waste; plan view of the location of the seasonal high water table in relation to the bottom elevation of the proposed landfill; a cross sectional view of existing and final elevations, bottom elevation and deflected bottom elevation, and seasonal high water table; geologic units; known and interpolated bedrock elevations; the proposed limits of excavation and waste placement; other devices as needed to divert or collect

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surface water run-on or run-off; a plan and cross section view of fill progression for the life of the landfill; the final elevations and grades of the landfill; groundwater monitoring system; and, the building locations and appurtenances;

(4) Detailed plans of the sedimentation ponds. These plans shall clearly show in plan and cross sectional views the following: the existing site topography, the seasonal high water table, pond bottom elevation, permanent pool elevation, first flush elevation, maximum elevation for sedimentation clean-out, emergency spillway 100-yr storm elevation, riser pipe, antiseep collars, outlet protection, emergency spillway, dewatering riser, trash/antivortex rack, and sedimentation pond gauge legend.

b. Engineering Report. The engineering report shall contain a comprehensive description of the existing site conditions and an analysis of the proposed landfill. All engineering reports shall be bound. This report shall include, but is not limited to, the following:

(1) A current 7.5 minute quadrant map (U.S. Geological Survey topographic map, including the legend and name of the quadrant) which shows contour intervals not exceeding five feet with the location, i.e. footprint, of the proposed landfill indicated;

(2) Source and description of cover material to be used. If soil excavated during landfill construction is to be used as cover material, indicate the location of stockpiles during landfill operation;

(3) Frequency of covering;

(4) Depth of disposal area;

(5) Final contours of the finished landfill areas;

(6) Stabilization Plan. This plan shall:

(a) Identify and locate existing vegetation to be retained and proposed vegetation to be used for cover, soil stockpiles, and other purposes; and,

(b) Include a schedule for seeding or implementing other appropriate erosion control measures. Appropriate measures shall be taken to stabilize stockpiled soils within 30 days;

(7) Operating Plan. A general operating plan for the proposed landfill shall include the expected life of the landfill, the maximum volume of solid waste the landfill will be capable of receiving over the operational life of the landfill, and the maximum rate at which the landfill will receive that waste during the designed life of the landfill. This plan shall at a minimum address the following:

(a) Screening procedures defining the methods for inspecting and measuring incoming waste;

(b) Procedures for control of storm water drainage;

(c) Procedures for prevention of fires;

(d) Procedures for control of vectors;

(e) Procedures for odor control;

(f) Procedures for dust control;



(g) Procedures for ensuring that waste does not escape the landfill boundaries during flooding;

(h) Hours of operation;

(i) Procedures for excavating, earth moving, spreading, compacting and covering operations, including a list of equipment to be at the landfill for daily operation. This submittal shall also include:

i. A description of the site's preparation and fill progression for the life of the site in terms of method, depth, location and sequence;

ii. A method of elevation control for the operator including the location and description of the permanent surveying benchmark at the site; and,

iii. A fill progression discussion describing the placement and compacted thickness of cover;

(j) Description of stormwater diversion in areas of constructed cells that have not had waste placement;

(k) A contingency plan describing landfill operation in the event of fire, explosion, or other event that would threaten human health and safety of the environment, and equipment failure. Reserve equipment shall be available within 24 hours of equipment breakdown. The contingency plan shall also contain procedures for the proper removal and disposal of unauthorized waste; and,

(l) A list of items that are not listed in Appendix I but are similar in nature to Appendix I of this regulation that the permittee wishes to place in the landfill, the anticipated quantity and source of the waste. Upon Department review, items other than those listed in Appendix I, that are approved for landfilling, shall be listed on the permit for that facility. After issuance of the permit, other items may be approved for disposal at the landfill by modification of the permit by the Department. Only items that will cause no environmental harm as determined by the Department shall be approved for disposal;

(8) A groundwater monitoring and corrective action plan pursuant to Sections D. and E. of this Part;

(9) Detailed closure plan in accordance with Section I. of this Part, to include a description of the final cover and the methods and procedures to be used to install the cover. This plan shall also include the following: an estimate of the sum of all active areas of the landfill requiring a final cover at any time during the operating life of the facility; an estimate of the maximum inventory of wastes ever on site over the active life of the facility; a schedule for completing all activities; and, a site plan of the landfill showing the proposed final elevations. The plan may be amended at any time during the active life of the facility with Department approval. The plan shall be amended whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure;

(10) Detailed post-closure plan in accordance with Section J. of this Part. This plan may address, but not be limited to, groundwater monitoring, landfill gas monitoring and maintenance of the integrity and effectiveness of the final cover including future use of the site.

c. South Carolina Coastal Zone Management Plan. The proposed landfill project shall be consistent with the South Carolina Coastal Zone Management Plan, if the landfill is located in the coastal zone as defined in accordance with the Coastal Zone Management Act.

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### I. Permit Conditions and Review.

1. Application forms for permits shall be provided by the Department and shall be submitted with sufficient detail to support a judgment that operation of the disposal system will not violate the laws and regulations of the State of South Carolina. The application shall be signed by the permittee of the landfill. The approved application and associated plans and drawings shall be an enforceable part of the permit. Permits shall be effective for the design and operational life of the facility.

2. Prior to issuance of permits for major modifications, as determined by the Department, and for new construction, the Department will make the draft permit available for public review and comment pursuant to Part I, Section D of this regulation.

3. The Department shall review the permit at least once every five years. Upon notification from the Department, the landfill shall submit to the Department a topographic survey map of the site that shows the contours at the beginning and the end of the period since the last permit review.

4. If, upon review, the Department finds that material or substantial violations of the permit demonstrate the permittee's disregard for, or inability to comply with, applicable laws, regulations, or requirements, and would make continuation of the permit not in the best interest of human health and safety or the environment, the Department may, after a hearing, amend or revoke the permit as appropriate and necessary. When a permit is reviewed, the Department shall include additional limitations, standards, or conditions when the technical limitations, standards, or regulations on which the original permit was based have been changed by statute or amended by regulation.

5. The Department may amend or attach conditions to a permit when:

a. There is a significant change, as determined by the Department, in the manner and scope of operation which may require new or additional permit conditions or safeguards to protect human health and safety and the environment;

b. The investigation has shown the need for additional equipment, construction, procedures, and testing to ensure the protection of human health and safety and the environment; and,

c. The amendment is necessary to meet changes in applicable regulatory requirements.

6. Failure to begin construction within twelve (12) months of the issuance of the Department permit shall render that permit invalid unless granted a variance in writing by the Department.

J. Transfer of Ownership. The Department may, upon written request, transfer a permit to a new permittee where no other change in the permit is necessary pursuant to Part I, F.2.b. of this regulation.

Part V. Class Three Landfills. (Subsections A through F of this Part are codified to coincide with those Subparts in 40CFR258.)

#### Subpart A. General Provisions.

##### 258.1. Purpose, Scope, and Applicability.

a. Part V. establishes minimum criteria for landfills that accept municipal solid waste, industrial solid waste, sewage sludge, nonhazardous municipal solid waste incinerator ash and other nonhazardous waste. Hereinafter, these landfills will be referred to as Class Three landfills. Class Three landfills shall adhere to their approved Special Waste Analysis and Implementation Plan (SWAIP), pursuant to S.C. Code

Section 44-96-390.

b. This Part applies to owners and operators of new and existing Class Three landfills, except as otherwise specifically provided in this regulation.

c. No Class Three landfill shall be operated in the State of South Carolina without first obtaining a written permit from the South Carolina Department of Health and Environmental Control.

d. Class Three landfills failing to satisfy the criteria in this Part are considered open dumps for purposes of State solid waste management planning under RCRA.

e. Class Three landfills failing to satisfy the criteria in this Part constitute open dumps, which are prohibited under section 4005 of RCRA.

f. Class Three landfills containing sewage sludge and failing to satisfy the criteria in this Part violate sections 309 and 405(e) of the Clean Water Act.

g. Class Three landfills permitted prior to the effective date of this regulation to accept only industrial waste that test less than 30 times the MCL shall be exempted from the design criteria as outlined in Subpart D of this Part.

258.2. Definitions. See Part I., Section B. for definitions that apply to this regulation.

258.3. Considerations of other Federal Laws. The permittee of a Class Three landfill shall comply with any other applicable Federal rules, laws, regulations, or other requirements.

258.4. Research, Development, and Demonstration Permits.

a. When the leachate collection system is designed and constructed to maintain less than a 1 ft. depth of leachate on the liner, the Department may issue a research, development, and demonstration (RD and D) permit pursuant to R.61-107.10 for a Class Three Landfill for the use of innovative and new methods that vary from either or both of the following criteria:

(1) The run-on control systems in Section 258.26.a.(1); and,

(2) The liquids restrictions in Section 258.28.a., and Subpart H. Section 7.c. for specific permit requirements for leachate recirculation.

b. The Department may issue a research, development, and demonstration permit pursuant to R.61-107.10 for a Class Three Landfill to utilize innovative and new methods that vary from the final cover criteria of Section 258.60.a.(1), a.(2), and b.(1) when it can be demonstrated that the infiltration of liquid through the alternative cover system will not cause contamination of groundwater or surface water, or cause leachate depth on the liner to exceed 1 foot.

c. Any permit issued under this section shall include such terms and conditions at least as protective as the criteria for Class Three landfills to assure protection of human health and the environment. Such permits shall:

(1) Provide for the construction and operation of such facilities as necessary, for not longer than two years, unless renewed in writing by the Department;

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(2) Provide that the landfill receive only those types and quantities of municipal solid waste and nonhazardous wastes that the Department deems appropriate for the purposes of determining the efficacy and performance capabilities of the technology or process;

(3) Include such requirements as necessary to protect human health and the environment, including such requirements as necessary for testing and providing information to the Department with respect to the operation of the facility;

(4) Require the permittee of a Class Three landfill permitted under this section to submit an annual report to the Department showing whether and to what extent the site is progressing in attaining project goals. The report will also include a summary of all monitoring and testing results, as well as any other operating information specified by the Department in the permit; and,

(5) Require compliance with all criteria in this part, except as permitted under this section.

d. The Department may order an immediate termination of all operations at the facility allowed under this section or other corrective measures at any time the Department determines that the overall goals of the project are not being attained, including protection of human health or the environment.

e. Any permit issued under this section shall not exceed two years and each renewal of a permit shall not exceed two years.

(1) The total term for a permit for a project including renewals may not exceed six years; and,

(2) When a permit renewal is requested, the applicant shall provide the Department with a detailed assessment of the project showing the status with respect to achieving project goals, a list of problems and status with respect to problem resolutions, and any other requirements that the Department determines necessary for permit renewal.

f. Upon expiration of the RD and D permit, if the innovative/new method is proved to be a viable method, the facility's existing landfill permit issued under the authority of this regulation may be amended to include the innovative/new method.

### Subpart B. Location Restrictions.

#### 258.10. Airport Safety.

a. Owners/operators of Class Three landfills that are located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft shall demonstrate that the units are designed and operated so that the Class Three landfill does not pose a bird hazard to aircraft.

b. Owners/operators proposing to site new Class Three Landfills and lateral expansions located within a five mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration (FAA).

c. The permittee shall place the demonstration required in a. above in the operating record and submit a copy to the Department.

d. See Part I, Section B. for definitions.

e. A new Class Three landfill that receives putrescible waste shall not be constructed or established after the effective date of this regulation within six (6) miles of a public airport that has received federal grant funds under 49 U.S.C. 47101 and is primarily served by general aviation aircraft and regularly scheduled flights of aircraft designed for sixty (60) passengers or more. The Federal Aviation Administration has issued guidance which includes criteria for determining when an airport is covered and has identified those airports meeting the criteria. Anyone considering construction or establishment of a new Class Three landfill within six (6) miles of a public airport should contact the Federal Aviation Administration. This requirement does not apply to:

(1) A new Class Three landfill if the S.C. Division of Aeronautics requests that the Administrator of the Federal Aviation Administration exempt the landfill from the application of this Item, and the Federal Aviation Administration Administrator determines that such exemption would have no adverse impact on aviation safety; or,

(2) Expansions, either vertical or lateral, of existing Class Three landfills constructed before the effective date of this regulation.

#### 258.11. Floodplains.

a. Owners/operators of Class Three Landfills located in 100-year floodplains shall demonstrate that engineering measures have been incorporated into the landfill design to ensure the landfill will: not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, minimize potential for floodwaters coming into contact with waste, or result in the washout of solid waste so as to pose a hazard to human health or the environment. The permittee shall place the demonstration in the operating record and submit a copy to the Department.

b. See Part I., Section B. for definitions that apply to this regulation.

258.12. Wetlands. All landfills shall be in compliance with the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the Department's requirements concerning wetlands.

#### 258.13. Fault Areas.

a. Class Three landfills shall not be located within 200 feet of a fault that has had displacement in Holocene time unless the permittee demonstrates to the Department that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the Class Three landfill and will be protective of human health and the environment.

b. See Part I., Section B. for definitions that apply to this regulation.

#### 258.14. Seismic Impact Zones.

a. Class Three landfills shall not be located in seismic impact zones, unless the permittee demonstrates to the Department that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

b. Definitions. See Part I., Section B. for definitions that apply to this regulation.

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### 258.15. Unstable Areas.

a. Owners/operators of Class Three landfills located in an unstable area shall demonstrate that engineering measures have been incorporated into the landfill's design to ensure that the integrity of the structural components of the Class Three landfill will not be disrupted. The permittee shall place the demonstration in the operating record and notify the Department that it has been placed in the operating record. The permittee shall consider the following factors, at a minimum, when determining whether an area is unstable:

- (1) On-site or local soil conditions that may result in significant differential settling;
- (2) On-site or local geologic or geomorphologic features; and,
- (3) On-site or man-made features or events (both surface and subsurface).

b. See Part I., Section B. for definitions that apply to this regulation.

### 258.16. Reserved.

### 258.17. Hydrogeologic Considerations.

a. Class Three landfills shall be located in areas that can be demonstrated to have the characteristics listed below (258.17.a.(1), a.(2), a.(3), and a.(4)). The inability of a site to meet full compliance with these criteria may not necessarily make the site unsuitable, but the applicant has the burden to demonstrate to the satisfaction of the Department why variance from the criteria will not compromise protection to human health and the environment. If Department review finds the demonstration to be inadequate, the application may be denied. Upon notification from the Department that the site meets the requirements of this section, the applicant may submit a complete application to the Department. This approval shall not be valid after a period of twelve (12) months of the date of issuance if the complete application has not been submitted, unless granted a variance by the Department.

(1) The site shall not be located in an area where the hydrogeologic conditions allow the groundwater to migrate from shallow geologic units that have little potential as an underground source of drinking water, into deeper units. At the disposal area, any release to the uppermost aquifer would remain in the uppermost aquifer until discharge into the perennial stream nearest to the disposal area. The potentiometric head in the shallow portion of the uppermost aquifer shall be equal to or lower than the potentiometric head in the deeper portion of the uppermost aquifer (i.e., a lateral or an upward hydraulic gradient shall exist).

(2) The estimated deflected (or settled) bottom elevation of the landfill base grade shall be a minimum of three feet above the seasonal high water table elevation as it exists prior to the construction of the disposal area. The seasonal high water table shall be determined by interpretation of a minimum of 12 months data obtained from a representative number of monitoring wells approved by the Department. In cases where there is insufficient information to support the seasonal high water table elevation determination, additional separation may be required by the Department.

(3) A minimum 10 foot vertical separation of naturally occurring or engineered material shall be maintained between the base of the constructed liner and bedrock; provided, however, the nature of the material and sufficient separation exists to provide for installation and operation of an effective groundwater monitoring system. The nature of the material comprising this interval is subject to Department approval.

(4) The landfill shall not be located over an area where a stratum of limestone exhibiting secondary permeability with an average thickness of greater than five feet lies within 50 feet of the base of the landfill.

b. Class Three landfills are prohibited in areas where the permittee cannot demonstrate to the satisfaction of the Department that:

(1) The Class Three landfill is not located in a manner that would result in the destruction of a perennial stream, within 200 feet of a perennial stream, within that portion of a drainage basin included in a 2500 foot radius on the upstream side of a public drinking water supply intake, and within that portion of a drainage basin which is within 1000 feet of a lake, pond, or reservoir used as a source of public drinking water supply; and,

(2) The hydrogeologic properties of the site can be adequately characterized. The characterization shall include, but not be limited to, a detailed description of the geologic units below the site (including mineralogy, sedimentary structures, thickness, continuity, and structure), the hydraulic properties of each geologic unit (including secondary porosity and a discussion of variations noted across the site), hydraulic gradient, hydraulic conductivity, and direction and rate of groundwater flow within the uppermost aquifer system and all interconnected aquifers and confining units using a groundwater flow net. In addition, the relationship between the units below the site to locally and regionally recognized geologic and hydrogeologic units shall be described.

c. Class Three landfills shall not be located over Class GA groundwater or over the recharge area for Class GA groundwater as designated by the Department, over a sole source aquifer, or over the recharge area for a sole source aquifer as designated by the Department.

d. All Class Three landfills shall demonstrate compliance with the groundwater monitoring requirements pursuant to Subpart E.

258.18. Buffer Zones. Class Three landfills shall meet the buffer zone requirements outlined below:

a. The boundary of the fill area shall not be located within 1,000 feet of any residence, day-care center, church, school, hospital or publicly owned recreational park area unless such features are included in the site design for a planned end use or otherwise approved by the Department. The Department will determine whether the proposed landfill or landfill expansion meets this requirement prior to publication of the Notice of Intent to File a Permit Application pursuant to Part I, Section D.1 of this Regulation;

b. The boundary of the fill area shall not be located within 200 feet of any property line not under control of the permittee. An exemption may be issued by the Department upon receipt of written approval from adjacent property owners;

c. The boundary of the fill area shall not be located within 200 feet of any surface water that holds visible water for greater than six consecutive months, excluding ditches, sediment ponds, and other operational features on the site;

d. The boundary of the fill area shall not be located within the distances designated below from any well used as a source of water for human consumption, that is in a hydrologic unit potentially affected by the landfill. Exemptions may be granted if the applicant can demonstrate to the satisfaction of the Department that the hydrologic conditions below the landfill provide protection to the aquifer in use.

(1) The boundary of the fill area shall not be located any closer than 500 feet from a well hydraulically upgradient of the landfill.

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(2) The boundary of the fill area shall not be located any closer than 750 feet from a well hydraulically sidegradient of the landfill.

(3) The boundary of the fill area shall not be located any closer than 1000 feet from a well hydraulically downgradient of the landfill.

e. Waste material shall not be placed on or within any property rights-of-way or 50 feet of underground or above ground utility equipment or structures, i.e., water lines, sewer lines, storm drains, telephone lines, electric lines, natural gas lines, etc., without the written approval of the impacted utility.

### Subpart C. Operating Criteria.

#### 258.20. Procedures for Excluding the Receipt of Hazardous Waste and Special Waste.

a. Owners/operators of all Class Three landfills shall implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in the South Carolina Hazardous Waste Management Regulations R.61-79.261 and polychlorinated biphenyls (PCB) wastes as defined in Toxic Substances Control Act (TSCA), Part 761. This program shall be a part of the Special Waste Analysis and Implementation Plan (SWAIP) and shall include, at a minimum:

(1) Random daily inspections of no less than 10% of incoming loads unless the permittee takes other steps as outlined in the SWAIP to ensure that incoming loads do not contain regulated hazardous wastes, PCB wastes, or wastes not specifically allowed by the permit. Bulk PCB wastes may be allowed for disposal in a Class Three landfill based on a case-by-case determination by the Department;

(2) Records of unacceptable waste to include quantities and descriptions of waste, generator information, and how/where waste was properly disposed;

(3) Training of facility personnel to recognize regulated hazardous waste and PCB wastes; and,

(4) Notification of the Department within 72 hours of facility personnel becoming aware that a regulated hazardous waste or PCB waste may have been disposed of at the facility.

b. Definitions. See Part I., Section B. for definitions that apply to this regulation.

c. The owners/operators of all Class Three landfills shall implement a program at the facility for regulating the receipt of special wastes as described in SC Code Section 44-96-390.

#### 258.21. Cover Material Requirements.

a. Except as provided in paragraph b. below, the owners/operators of all Class Three landfills shall cover solid waste with six (6) inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control vectors, fires, odors, blowing litter, and scavenging. Special waste may require more frequent or additional cover.

b. Alternative materials of an alternative thickness (other than at least six (6) inches of earthen material) may be approved by the Department on a case-by-case basis if the permittee demonstrates that the alternative material and thickness control vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.



c. The Class Three landfill shall have an adequate quantity of acceptable earth (or approved alternate) cover for routine operations. If the material does not originate on-site, the permit application shall indicate the calculated volume of material needed for cover, provide assurances that off-site quantities of cover material are available, the location of any earth stockpiles, and any provisions for saving topsoil for use as final cover. The earth cover material shall be easily workable and compactable, shall be free of large objects that would hinder compaction, and shall not contain organic matter conducive to the harborage and/or breeding of vectors or nuisance animals.

d. The Department may grant, with prior notice from the permittee, a temporary waiver not to exceed seven days from the requirements of paragraphs a. and b. above for emergency situations.

258.22. Disease Vector Control.

a. Owners/operators of all Class Three landfills shall prevent or control on-site populations of vectors using techniques appropriate for the protection of human health and the environment.

b. Definitions. See Part I., Section B. for definitions that apply to this regulation.

258.23. Explosive Gases Control.

a. Owners/operators of all Class Three landfills shall ensure that:

(1) The concentration of methane gas generated by the facility does not exceed 25% of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components); and,

(2) The concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary.

b. Owners/operators of all Class Three landfills shall implement a routine methane monitoring program to ensure that the standards in paragraph a. above are met.

(1) The type and frequency of monitoring shall be determined based on the following factors:

(a) Soil conditions;

(b) The hydrogeologic conditions surrounding the facility;

(c) The hydraulic conditions surrounding the facility; and,

(d) The location of facility structures and property boundaries.

(2) The minimum frequency of monitoring shall be quarterly.

c. If methane gas levels exceeding the limits specified in Section 258.23.a. above are detected, the permittee shall:

(1) Immediately take all necessary steps to ensure protection of human health and notify the Department;

(2) Within seven days of detection, place in the operating record and submit to the Department a copy of the methane gas levels detected and a description of the steps taken to protect human health; and,

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(3) Within 30 days of detection, submit a methane remediation plan and construction details, signed and stamped by a South Carolina Licensed Professional Engineer, to the Department for approval; and,

(4) Within 30 days of plan approval, implement the Department approved remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the Department that the plan has been implemented. The plan shall describe the nature and extent of the problem, the proposed remedy, and contain a schedule for compliance.

d. Definitions. See Part 1., Section B. for definitions that apply to this regulation.

### 258.24. Air Criteria.

a. Owners/operators of all Class Three landfills shall ensure that the landfills do not violate any applicable requirements developed in a State Implementation Plan (SIP) approved or promulgated by the Department pursuant to Section 110 or Section 111 of the Clean Air Act, as amended.

b. Open burning of solid waste, except for the infrequent burning of agricultural wastes, silvicultural wastes, landclearing debris, diseased trees, or debris from emergency clean-up operations, all of which require prior Department approval, is prohibited at all Class Three landfills.

### 258.25. Access Requirements.

a. Owners/operators of all Class Three landfills shall control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment.

b. The landfill shall be adjacent to or have direct access to roads that are of all-weather construction and capable of withstanding anticipated load limits.

c. Salvaging and scavenging shall not be allowed at the working face of a Class Three landfill at any time.

### 258.26. Run-on/run-off Control Systems.

a. Owners/operators of all Class Three landfills shall design, construct, and maintain:

(1) A run-on control system to prevent flow onto the active portion of the landfill during the peak discharge from a 25-year storm; and,

(2) A run-off control system from the active portion of the landfill to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

b. Run-off from the active portion of the landfill shall be handled in accordance with 258.27.a. below.

### 258.27. Surface Water Requirements.

a. Class Three landfills shall not:

(1) Cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, Section 402 of the National Pollutant Discharge Elimination System (NPDES); and,

(2) Cause the discharge of a nonpoint source of pollution to waters of the United States, including wetlands, that violates any requirement of an area-wide or State-wide water quality management plan that has been approved in Section 208 or 319 of the Clean Water Act, as amended.

b. The permittee shall obtain an appropriate permit from the Department prior to the discharge of any storm waters to surface waters.

258.28. Liquids Restrictions.

a. Bulk or noncontainerized liquid waste may not be placed in Class Three landfills unless:

(1) The waste is household waste; or,

(2) The landfill has a Department Research, Development, and Demonstration Permit as outlined in Section 258.4 of this regulation.

b. Containers holding liquid waste may not be placed in a Class Three landfill unless:

(1) The container is a small container similar in size to that normally found in household waste;

(2) The container is designed to hold liquids for use other than storage; or,

(3) The waste is household waste.

c. For definitions, see Part I, Section B.

258.29. Record Keeping Requirements.

a. The permittee of a Class Three landfill shall record and retain near the facility in an operating record or in an alternative location approved by the Department for a period of no less than three years the following information as it becomes available:

(1) Any location restriction demonstration required in Subpart B of this Part;

(2) Inspection records, training procedures, and notification procedures required in Section 258.20. of Subpart C;

(3) Gas monitoring results and any remediation plans required by Section 258.23. of Subpart C;

(4) Any Class Three landfill design documentation for placement of leachate or gas condensate in the landfill as required in Section 258.28.a.(2) above;

(5) Any demonstration, certification, finding, monitoring, testing, or analytical data required by Subpart E;

(6) Closure and post-closure care plans, updates to the closure and post-closure care plans, and any monitoring, testing, or analytical data as required by Sections 258.60. and 258.61. of this Part;

(7) Any cost estimates and financial assurance documentation required by Part I., Section E. of this regulation; and,

(8) The results of any environmental monitoring or testing performed in accordance with this regulation or the operating permit for the facility.

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b. All information contained in the operating record shall be furnished upon request to the Department or be made available at all reasonable times for inspection by the Department.

c. The permittee of a Class Three landfill shall record in an operating record, information concerning the source or type (e.g. residential route, commercial, industrial, transfer station identity, special); weight (tons); county and State of origin of each load of waste delivered to the facility. A summary of this information shall be submitted to the Department no later than September 1, of each year, for the previous fiscal year, on a form approved by the Department.

d. The Department can set alternative schedules for record keeping and notification requirements as specified in Sections 258.29.a. and b. above, except for the notification requirements in Sections 258.10.b. and 258.55.i.(1)(d).

258.30. Scale Installation. Each permittee of a Class Three landfill shall install and/or maintain scales capable of accurately determining the weight of incoming waste streams.

258.31. Equipment. The following equipment shall be required to ensure adequate operation of the Class Three landfill:

a. Equipment or adequate contractual arrangements for equipment sufficient for excavating, earth moving, spreading, dust suppression, compacting and covering operations;

b. Sufficient reserve equipment, or arrangements to provide alternate equipment within 24 hours following equipment breakdown; and,

c. Equipment to extinguish fires or arrangements to provide for fire protection.

258.32. Supervision and Inspection.

a. Supervision of the operation of the Class Three landfill shall be the responsibility of a qualified individual who has experience in the operation of a Class Three Landfill, and has completed operator training courses and is certified pursuant to R.61-107.14.

b. Routine inspection and evaluation of landfill operations will be made by a representative of the Department. A notice of any deficiencies, together with any recommendations for their correction, will be provided to the owner or local government responsible for the operation of the landfill.

258.33. Leachate Handling Agreement. Either a legal document (contract, local permit, etc.) certifying acceptance of leachate by the operator of a wastewater treatment facility for the discharge of leachate to that facility, or a state pollutant discharge elimination system permit shall be obtained prior to initial receipt of waste at the facility.

258.34. Leachate Control. The permittee of the Class Three landfill shall ensure that the leachate head above the liner system does not exceed one (1) foot, except for brief periods not to exceed one (1) week, due to circumstances beyond the immediate control of the permittee.

258.35. Testing of Municipal Solid Waste Incinerator Ash.

a. Ash residue disposed at a Class Three landfill shall be sampled and analyzed according to the current Environmental Protection Agency (EPA) acceptable methodology for determining the hazardous nature of the ash.

b. The required analysis of all ash shall be performed in accordance with the conditions of the solid waste incinerator permit where the ash is generated, and the Class Three landfill where the ash is disposed.

c. Prior to disposal, ash from each facility generating ash shall be tested, at a minimum semi-annually and when any changes occur to the waste streams being incinerated, to determine the hazardous or non-hazardous nature of the ash stream.

d. No ash determined to be hazardous waste shall be disposed at a Class Three landfill.

e. Records of all ash testing shall be maintained in the operating record of the Class Three landfill.

258.36. Sign Requirements. Signs shall be posted and maintained at the main entrance that:

a. Identify the owner, operator, or a contact person and telephone number in case of emergencies and the normal hours during which the landfill is open to receive waste;

b. State the types of waste that the landfill is permitted to receive; and,

c. Identify the valid SCDHEC Facility I.D. Number for the facility.

258.37. Litter Control. Wind borne waste shall be controlled at the Class Three landfill. The entire facility shall be policed as necessary to remove any accumulations of blown litter.

Subpart D. Design Criteria for Class Three Landfills.

258.40. Design Criteria.

a. Class Three landfills shall be constructed:

(1) In accordance with a design approved by the Department. The design shall ensure that the maximum contaminant level (MCL) as specified in the South Carolina State Primary Drinking Water Standards, R.61-68 will not be exceeded in the uppermost aquifer at the relevant point of compliance, as specified by the Department in Section 258.40.i. below; or,

(2) With a composite liner, as defined in Item b. below of this section and a leachate collection system that is designed and constructed to maintain less than a one (1) foot depth of leachate over the liner, except in sumps.

(3) Monofills that accept coal combustion byproducts that test greater than ten (>10) times the maximum contaminant level (MCL), may be constructed with a clay liner system consisting of a minimum of a two (2) foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec, and an appropriate leachate collection system. These facilities shall comply with all other requirements for a Class III landfill.

b. Liner. A composite liner system shall consist of two components: the upper component shall consist of a minimum 30-mil flexible membrane liner (FML); and, the lower component shall consist of at least a two foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec. FML components consisting of High Density Polyethylene (HDPE) shall be at least 60-mil thick. The FML component shall be installed in direct and uniform contact with the compacted soil component.

c. The leachate collection and removal system shall be designed and built to operate without clogging during the operational life of the site and post-closure maintenance period. The system shall be designed to allow for routine maintenance and cleaning of the system.

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d. Filter layers shall be designed to prevent the migration of fine soil particles into a coarser grained material, and allow water or gases to freely enter a drainage medium (pipe or drainage blanket) without clogging.

e. The total thickness of the drainage and protective layers above the liner material shall be a minimum of two feet thick, and shall be composed of material with a minimum hydraulic conductivity of  $1 \times 10^{-4}$  cm/sec.

f. All material used in the leachate collection and removal system of the landfill shall be designed to ensure that the hydraulic leachate head on the liner system does not exceed one foot as a result of a 24-hour, 25-year storm event during the active life and post-closure care period of the landfill.

g. A foundation analysis shall be performed to determine the structural integrity of the subgrade to support the horizontal and vertical stresses and overlying facility components.

(1) The constructed landfill subgrade material shall consist of on-site soils or select fill with minimal organic material, as approved by the Department.

(2) The landfill subgrade shall be graded in accordance with the requirements of the approved engineering plans, reports and specifications. The material shall be sufficiently dry and structurally sound to ensure that the first lift and all succeeding lifts of soil placed over the landfill subgrade can adequately be compacted to the design requirements.

h. When approving a design that complies with the requirements of this Part, the Department shall consider at least the following factors:

- (1) The hydrogeologic characteristics of the facility and surrounding land;
- (2) The climatic factors of the area; and,
- (3) The volume and physical and chemical characteristics of the leachate.

i. The relevant point of compliance specified by the Department shall be no more than 150 feet from the waste management unit boundary and shall be located on land owned by the owner of the Class Three landfill. In determining the relevant point of compliance, the Department shall consider at least the following factors:

- (1) The hydrogeologic characteristics of the facility and surrounding land;
- (2) The volume and physical and chemical characteristics of the leachate;
- (3) The quantity, quality, and direction of flow of groundwater;
- (4) The proximity and withdrawal rate of the groundwater users;
- (5) The availability of alternative drinking water supplies;
- (6) The existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater and whether groundwater is currently used or reasonably expected to be used for drinking water;
- (7) Public health, safety, and welfare effects; and,

(8) Practicable capability of the permittee.

j. One permanent survey benchmark of known elevation measured from a U.S. Geological Survey benchmark shall be established and maintained at the site. This benchmark shall be the reference point for establishing horizontal and vertical elevation control.

k. A minimum separation of three feet shall be maintained between the base of the constructed liner system and the high water table. Settlement of the landfill base grade shall be factored into the minimum separation requirement.

l. The soil component of the liner system shall conform with the following:

(1) The soil component of the liner system shall be placed on a slope of no less than 2% to promote positive drainage across the liner surface and at a maximum slope not greater than 33% to facilitate construction; and,

(2) Compaction shall be performed by properly controlling the moisture content, lift thickness and other necessary details to obtain satisfactory results.

m. The flexible membrane liner material shall demonstrate a chemical and physical resistance to waste placement or leachate generated by the landfill. Documentation shall be submitted to ensure chemical compatibility of the geomembrane liner material chosen, or in absence of the appropriate documentation, chemical compatibility testing shall be performed using a test method acceptable to the Department. Flexible membrane liners shall be installed in accordance with the requirements of the approved engineering plans, report, specifications and manufacturer's recommendations.

n. All storm water ditches should have a minimum slope of 0.5% or a minimum permissible non-silting velocity of two feet per second. When it is not possible to achieve minimum slopes and/or velocities, alternative system design and maintenance, which ensures proper run-on and run-off control, may be approved by the Department.

o. For landfill expansions adjacent to existing Class Three landfills, the Department may approve encroachment upon the existing landfill's side slopes only if a leachate barrier system is designed and constructed to eliminate leachate migration into the existing landfill. The expansion area shall be constructed in compliance with all applicable sections of this regulation. The subsurface conditions of the underlying area shall be capable of supporting the expansion.

p. A construction certification report shall be submitted to the Department for approval after the completion of landfill construction by a S.C. licensed engineer other than the design engineer. This report shall include at a minimum, the information prepared in accordance with the application requirements. In addition, the construction certification report shall contain as-built drawings prepared and sealed by a land surveyor registered in South Carolina noting any deviations from the approved engineering plans. The construction certification report shall include a comprehensive narrative by the engineer. Upon approval of the construction certification report and a satisfactory Department inspection, the Department will grant approval for disposal of waste.

q. The Department may, on a case-by-case basis, approve other landfill designs, provided there is adequate information to demonstrate that the proposed design meets or exceeds the environmental and public health protection standards outlined in this regulation.

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r. Class Three landfills shall have a minimum 1.7 factor safety against failure, where the soil conditions are complex and when available strength data does not provide a consistent, complete, or logical picture of the strength characteristics. Where the soil conditions are uniform and high quality strength data provides a consistent, complete, and logical picture of the strength characteristics, a minimum 1.2 factor safety against failure may be used. The determination of the maximum horizontal acceleration of the lithified earth material for the site shall be based on the seismic 250-year interval maps in U.S. Geological Survey Open-File Report 82-1033<sup>1</sup>. The permittee shall place the demonstration in the operating record and submit a copy to the Department.

### Subpart E. Groundwater Monitoring and Corrective Action

#### 258.50. Applicability.

a. The requirements in this part apply to all Class Three landfills, except as provided in paragraph b. below.

b. Groundwater monitoring requirements in Sections 258.51. through 258.55. of this Part may be modified by the Department for a Class Three landfill if the permittee can demonstrate that there is no potential for migration of hazardous constituents from the Class Three landfill to the uppermost aquifer during the active life of the landfill and the post-closure care period. This demonstration shall be certified by a qualified professional and approved by the Department, and shall be based upon:

(1) Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport; and,

(2) Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment.

c. Class Three landfills shall be in compliance with the groundwater monitoring requirements specified in Sections 258.51. - 258.55. before waste can be placed in the landfill.

d. Once established at a Class Three landfill, groundwater monitoring shall be conducted throughout the active life and post-closure care period of the landfill as specified in Section 258.61.

e. For the purposes of this Subpart, a qualified professional shall certify all submittals.

f. The Department may establish alternative schedules for demonstrating compliance with the various sections of this Subpart on a case-by-case basis, provided sufficient technical rationale is provided to the Department to justify the alternate compliance schedule.

#### 258.51 Groundwater Monitoring Systems

a. A groundwater monitoring system shall be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield representative groundwater samples from the uppermost aquifer that:

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<sup>1</sup> Entitled "Probabilistic Estimates of Maximum Acceleration and Velocity in Rock in the Contiguous United States," (Algermissen and Perkins, 1982).



(1) Represent the quality of background groundwater that has not been affected by leakage from a landfill. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(a) Hydrogeologic conditions do not allow the permittee to determine what wells are hydraulically upgradient; or,

(b) Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells; and,

(2) Represent the quality of groundwater passing the relevant point of compliance approved by the Department in Section 258.40.i. The downgradient monitoring system shall be installed between the relevant point of compliance and the actual disposal area, and shall ensure detection of any groundwater contamination in the uppermost aquifer. When physical obstacles preclude installation of groundwater monitoring wells at the relevant point of compliance at existing landfills, the downgradient monitoring system shall be installed at the closest practicable distance hydraulically downgradient from the relevant point of compliance to ensure detection of groundwater contamination in the uppermost aquifer.

b. Reserved.

c. Monitoring wells shall be approved by the Department and constructed, at a minimum, to the standards established in the R.61-71.H., South Carolina Well Standards.

(1) The permittee shall submit to the Department and place in the operating record, documentation of the design, installation, development, and abandonment of any monitoring wells, piezometers and other measurement, sampling, and analytical devices; and,

(2) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices shall be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

d. The number, spacing, and depths of monitoring systems shall be:

(1) Determined based upon site-specific technical information that shall include thorough characterization of:

(a) Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow, and the information required by Section 258.17.; and,

(b) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer; including, but not limited to: thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities; and,

(2) Certified by a qualified professional and approved by the Department. Within 14 days of this certification, the permittee shall place the certification in the operating record and submit a copy to the Department.

258.52. Reserved.

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### 258.53. Groundwater Sampling and Analysis Requirements.

a. The groundwater monitoring program shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells installed in compliance with Section 258.51.a. of this Part. The permittee shall submit to the Department for review and approval, the sampling and analysis procedures and protocols to be used at the facility. After approval by the Department, documentation shall be placed in the operating record. The program shall include procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures;
- (4) Chain of custody; and,
- (5) Quality assurance and quality control.

b. The groundwater monitoring program shall include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. Detection limits for those parameters that have a Maximum Contaminant Level (MCL) that has been promulgated under South Carolina R.61-58, State Primary Drinking Water Regulations, shall be, at a minimum, below the established MCL. Detection levels shall be as low as practically possible, and at the practical quantitation level (PQL) for those constituents with no MCL. Groundwater samples shall not be field-filtered prior to laboratory analysis.

c. The sampling procedures and frequency shall be protective of human health and the environment.

d. Groundwater elevations shall be measured and recorded for each well prior to initiating sampling procedures each time groundwater is sampled. The permittee shall determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells that monitor the same waste management area shall be measured on the same day to avoid temporal variations in groundwater flow which could preclude an accurate determination of groundwater flow rate and direction.

e. The permittee shall establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the metals or constituents required in the particular groundwater monitoring program that applies to the Class Three landfill, as determined in Section 258.54.a., or Section 258.55.a. Background groundwater quality may be established at wells that are not located hydraulically upgradient from the Class Three landfill if it meets the requirements of Section 258.51.a.(1). In order to establish background groundwater quality in a reasonable period of time, pursuant to Sections 258.53.i.(1) and 258.53.i.(2), the permittee shall collect and analyze a minimum of four (4) independent groundwater samples from each compliance well and each background well prior to the end of the first year of operation. The Department may, on a case-by-case basis, approve an alternate subset of wells to be sampled for the establishment of background groundwater quality. The alternate subset of wells shall consist of a minimum of four (4) wells, or the total number of wells monitoring the landfill, whichever is least, and shall include all background well(s). This sampling and analysis shall be accomplished in a manner consistent with the requirements of Section 258.53.f. Pursuant to Section 258.51.a.(1), the above samples shall represent the quality of background groundwater that has not been affected by leakage from a landfill.

f. The number of samples collected to establish groundwater quality data shall be consistent with the appropriate statistical procedures determined pursuant to paragraph g. below. The sampling procedures shall be those specified in Section 258.54.b. for detection monitoring, Sections 258.55.b. and d. for assessment monitoring, and Section 258.56.b. for corrective action.

g. The permittee shall specify in the operating record a statistical method to be used in evaluating groundwater monitoring data for each metal or other hazardous constituent requiring statistical analysis. The statistical test chosen shall be conducted for each parameter in each well, every time samples are collected. The following methods may be used:

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(4) A control chart approach that gives control limits for each constituent; or,

(5) Another statistical test method that meets the performance standards of Section 258.53.h. The permittee shall place a justification for this alternative in the operating record and obtain approval from the Department prior to the use of this alternative test. The justification shall demonstrate that the alternative method meets the performance standards of Section 258.53.h.

h. Any statistical method chosen according to paragraph g. above shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents are shown by the permittee to be inappropriate for a normal theory test, then the data shall be transformed or a distribution-free theory test used. If the distributions for the constituents differ, more than one statistical method may be needed;

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground-water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts;

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern;

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(4) If a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence, and for tolerance intervals, the percentage of the population that the interval contains, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern;

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and,

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

i. The permittee shall determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the Class Three landfill, as determined in Section 258.54.a. or Section 258.55.a.

(1) In determining whether a statistically significant increase has occurred, the permittee shall compare the groundwater quality of each parameter or constituent at each monitoring well designated pursuant to Section 258.51.a.(2) to the background value of that constituent, according to the statistical procedures and performance standards specified in paragraphs g. and h. above.

(2) Within a reasonable period of time after completing sampling and analysis, the permittee shall determine whether there has been a statistically significant increase over background for each metal or other hazardous constituent requiring statistical analysis at each monitoring well.

### 258.54. Detection Monitoring Program.

a. Detection monitoring is required at all Class Three landfill groundwater monitoring wells defined in Sections 258.51.a.(1) and a.(2). At a minimum, a detection monitoring program shall include the monitoring for the constituents listed in Appendix IV of this part.

(1) The Department may delete any of the Appendix IV monitoring parameters for a Class Three landfill if it can be shown that the deleted constituent(s) are not reasonably expected to be contained in or derived from the waste contained in the landfill.

(2) The Department may require additional groundwater monitoring parameters for routine monitoring based on the chemical and physical nature of the waste stream received by the landfill and any analytical data for the waste streams provided by the permittee.

b. The monitoring frequency for all constituents listed in Appendix IV to this part shall be at least semiannual during the active life of the facility and the post-closure care period. At least one sample from each well (background and downgradient) shall be collected and analyzed during each sampling event.

c. The Department may specify an appropriate alternative frequency for repeated sampling and analysis for Appendix IV constituents during the active life and the post-closure care period. The alternative frequency during the active life shall be no less than semiannual. The alternative frequency shall be based on consideration of the following factors:

(1) Lithology of the aquifer and unsaturated zone;

(2) Hydraulic conductivity of the aquifer and unsaturated zone;

(3) Groundwater flow rates;

(4) Minimum distance between upgradient edge of the Class Three landfill and downgradient monitoring well screen (minimum distance of travel); and,

(5) Resource value of the aquifer.

d. If the permittee determines, pursuant to Section 258.53.g., that there is a statistically significant increase over background for one or more of the metals listed in Appendix IV, or above the MCL or PQL, as applicable, for any volatile organic compound (VOC) listed in Appendix IV at any monitoring well at the boundary specified in Section 258.51.a.(2), the permittee shall:

(1) Within 14 days of this finding, notify the Department;

(2) Within 14 days of this finding, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels;

(3) Within 30 days of this finding, resample the monitoring well(s) in question for Appendix IV to determine the validity of the data; and,

(4) If the data are validated by resampling, establish an assessment monitoring program meeting the requirements of Section 258.55. within 90 days except as provided for in paragraph d.5 of this section.

(5) The permittee may demonstrate that a source other than a Class Three landfill caused the contamination or that the statistically significant increase (SSI) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration shall be certified by a qualified professional, submitted to the Department for approval, and placed in the operating record. If a successful demonstration is made and documented, the permittee may continue detection monitoring as specified in this section. If, after 90 days, a successful demonstration is not made, the permittee shall initiate an assessment monitoring program as required in Section 258.55.

e. The permittee shall submit to the Department on or before the anniversary date of issuance of the permit, an annual report certified by a qualified professional containing all of the analytical and statistical analysis performed at the site for the previous year as a result of the requirements of this Part. The annual report shall contain the following:

(1) The results of all analytical testing performed at the site during the previous year, and any applicable data concerning sampling and analysis of monitoring wells at the site;

(2) A determination of the technical sufficiency of the monitoring well network in detecting a release from the facility as required by Section 258.51.;

(3) The determination of groundwater elevations, groundwater flow directions and groundwater flow rates as specified in Section 258.53.d. Groundwater flow directions shall be based upon interpretation of a potentiometric map prepared utilizing the groundwater elevations measured at the site;

(4) A summary of the results of the statistical analysis performed in accordance with Sections 258.53.g. and 258.53.h.; and,

(5) Recommendations for any necessary actions regarding the groundwater monitoring system.

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f. The results of all chemical analysis of groundwater samples taken during routine monitoring shall be submitted to the Department within 60 days of sample collection. On sampling events where an annual report is to be submitted to the Department, the annual report shall satisfy this requirement.

### 258.55. Assessment Monitoring Program.

a. Assessment monitoring is required whenever a statistically significant increase over background has been detected and validated, in accordance with Section 258.54.d., for one or more of the metals listed in Appendix IV, or above the MCL or PQL, as applicable, for any volatile organic compound (VOC) listed in Appendix IV, unless a successful demonstration has been made in accordance with Section 258.54.d.(5).

b. Within 90 days of triggering an assessment monitoring program, and annually thereafter, the permittee shall sample and analyze the groundwater for all constituents identified in Appendix V. A minimum of one sample from each downgradient well shall be collected and analyzed during each sampling event. For any constituent detected in the downgradient wells as the result of the complete Appendix V analysis, a minimum of four (4) independent samples from each well (background and downgradient) shall be collected and analyzed to establish background for the new constituents.

c. The Department may approve an appropriate subset of wells to be sampled and analyzed for Appendix V constituents during assessment monitoring, provided the permittee provides sufficient technical rationale for the subset of wells. The Department may delete any of the Appendix V monitoring parameters for a Class Three landfill if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the landfill.

d. The Department may allow an appropriate alternate frequency for repeated sampling and analysis for the full set of Appendix V constituents required by Section 258.55.b., during the active life and post-closure care of the landfill considering the following factors:

- (1) Lithology of the aquifer and unsaturated zone;
- (2) Hydraulic conductivity of the aquifer and unsaturated zone;
- (3) Groundwater flow rates;
- (4) Minimum distance between upgradient edge of the Class Three landfill and downgradient monitoring well screen (minimum distance of travel);
- (5) Resource value of the aquifer; and,
- (6) Nature (fate and transport) of any constituents detected in response to this section.

e. After obtaining the results from the initial or subsequent sampling events required in paragraph b. above, the permittee shall:

- (1) Within 14 days, submit to the Department analytical results identifying the Appendix V constituents that have been detected and place a copy in the operating record;

- (2) Within 90 days, and on at least a semiannual basis thereafter, resample all wells specified by Section 258.51.a., conduct analyses for all constituents in Appendix IV and for those constituents in Appendix V that are detected in response to paragraph (b) above, and record their concentrations in the facility operating record. At least one sample from each well (background and downgradient) shall be collected and analyzed during these sampling events;

(3) Establish background concentrations for any constituents detected pursuant to paragraphs b., c., d. or e.(2) above; and,

(4) Establish groundwater protection standards for all constituents detected pursuant to paragraph b. or e. above. The groundwater protection standards shall be established in accordance with paragraph j. or k. below.

f. The Department may specify an alternative monitoring frequency during the active life and the post closure care period for the constituents referred to in this paragraph. The alternative frequency for Appendix V constituents during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the factors specified in paragraph (d) above.

g. If the concentrations of all Appendix V constituents are shown to be at or below background values, using the statistical procedures in Section 258.53.g., for two consecutive sampling events, the permittee may request approval from the Department to return to detection monitoring.

h. If the concentrations of any Appendix V constituents are above background values, but all concentrations are less than the groundwater protection standard established in paragraph j. or k. below, using the statistical procedures in Section 258.53.g., the permittee shall continue assessment monitoring in accordance with this section.

i. If one or more Appendix V constituents are detected at or above the groundwater protection standard established in paragraph j. or k. below in any sampling event, the permittee shall, within 14 days of this finding, submit to the Department analytical results identifying the Appendix V constituents that have exceeded the groundwater protection standard and notify the Department and all appropriate local government officials that the notice has been placed in the operating record. The permittee shall do one of the following:

(1) Either:

(a) Submit to the Department within 60 days of this finding, a groundwater quality assessment plan for characterizing the nature and extent of the release.

(b) Upon approval of the groundwater quality assessment plan, shall characterize the nature and extent of the release by installing additional monitoring wells as necessary;

(c) Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with Section 258.55.d.(2);

(d) Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site as indicated by sampling of wells in accordance with Section 258.55.i.(1); and,

(e) Initiate an assessment of corrective measures as required by Section 255.56. within 90 days; or,

(2) Demonstrate that a source other than a Class Three landfill caused the contamination, or that the statistically significant increase (SSI) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration shall be certified by a qualified professional, submitted to the Department for approval, and placed in the operating record. If a successful demonstration is made, the permittee shall continue monitoring in accordance with the assessment monitoring program pursuant to Section 258.55., and may return to detection monitoring if the Appendix V constituents are at or below background as specified in Section 258.55.g. Until a successful demonstration is made, the permittee shall comply with Section 258.55.i. including initiating an assessment of corrective

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measures.

j. The permittee shall establish a groundwater protection standard for each Appendix V constituent detected in the groundwater. The groundwater protection standard shall be:

(1) For constituents for which a maximum contaminant level (MCL) has been promulgated under South Carolina R.61-58, State Primary Drinking Water Regulations, the MCL for that constituent;

(2) For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells in accordance with 258.51.a.(1); or,

(3) For constituents for which the background level is higher than the MCL identified in paragraph j.(1) above or health based levels identified in Section 258.55.k.(1), the background concentration.

k. The Department may establish an alternative groundwater protection standard for constituents for which MCLs have not been established. These groundwater protection standards shall be appropriate health based levels that satisfy the following criteria:

(1) The level is derived in a manner consistent with Federal Environmental Protection Agency (EPA) guidelines for assessing the health risks of environmental pollutants (51 FR 33992, 34006, 34014, 34028, September 24, 1986);

(2) The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 CFR part 792) or equivalent;

(3) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) of  $1 \times 10^{-6}$ ; and,

(4) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subpart, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

l. In establishing groundwater protection standards in paragraph j. or k. above, the Department may consider the following:

(1) Multiple contaminants in the groundwater;

(2) Exposure threats to sensitive environmental receptors; and,

(3) Other site-specific exposure or potential exposure to groundwater.

### 258.56. Assessment of Corrective Measures

a. Within 90 days of finding that any of the constituents listed in Appendix V have been detected at a level exceeding the groundwater protection standards defined in Section 258.55.j. or k., the permittee shall initiate an assessment of corrective measures. Such an assessment shall be completed within a reasonable period of time, not to exceed 180 days.

b. The permittee shall continue to monitor in accordance with the assessment monitoring program as specified in Section 258.55.



c. The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described in Section 258.57., addressing at least the following:

(1) The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(2) The time required to begin and complete the remedy;

(3) The costs of remedy implementation; and,

(4) The institutional requirements such as Department or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

d. The permittee shall discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

258.57. Selection of Remedy.

a. Based on the results of the corrective measures assessment conducted according to Section 258.56, the permittee shall select a remedy that, at a minimum, meets the standards listed in paragraph b. below. The permittee shall notify the Department within 14 days of selecting a remedy and submit a report to the Department for review and approval that describes the selected remedy and how it meets the standards in paragraph b. below.

b. Remedies shall:

(1) Be protective of human health and the environment;

(2) Attain the groundwater protection standard as specified pursuant to Section 258.55.j. or k.;

(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix V constituents into the environment that may pose a threat to human health or the environment; and,

(4) Comply with standards for management of wastes as specified in Section 258.58.d.

c. In selecting a remedy that meets the standards in paragraph b. above, the permittee shall consider the following evaluation factors:

(1) The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:

(a) Magnitude of reduction of existing risks;

(b) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;

(c) The type and degree of long-term management required, including monitoring, operation, and maintenance;

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(d) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment;

(e) Time until full protection is achieved;

(f) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;

(g) Long-term reliability of the engineering and institutional controls; and,

(h) Potential need for replacement of the remedy;

(2) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(a) The extent to which containment practices will reduce further releases; and,

(b) The extent to which treatment technologies may be used;

(3) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

(a) Degree of difficulty associated with constructing the technology;

(b) Expected operational reliability of the technologies;

(c) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(d) Availability of necessary equipment and specialists; and,

(e) Available capacity and location of needed treatment, storage, and disposal services; and,

(4) The degree to which community concerns are addressed by a potential remedy(s).

d. The permittee shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule shall require the initiation of remedial activities within a reasonable period of time taking into consideration the factors set forth in paragraphs d.(1-8). The permittee shall consider the following factors in determining the schedule of remedial activities:

(1) Extent and nature of contamination;

(2) Practical capabilities of remedial technologies in achieving compliance with groundwater protection standards established in Section 258.55.j. or k. and other objectives of the remedy;

(3) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

(4) Desirability of utilizing technologies that are not readily available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or

ability to achieve remedial objectives;

(5) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

(6) Resource value of the aquifer including:

(a) Current and future uses;

(b) Proximity and withdrawal rate of users;

(c) Groundwater quantity and quality;

(d) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituent;

(e) The hydrogeologic characteristic of the facility and surrounding land;

(f) Groundwater removal and treatment costs; and,

(g) The cost and availability of alternative water supplies;

(7) Practicable capability of the permittee; and,

(8) Other relevant factors.

e. The Department may determine that remediation of a release of an Appendix V constituent from a Class Three landfill is not necessary if the permittee demonstrates to the Department that:

(1) The groundwater is additionally contaminated by substances that have originated from a source other than a Class Three landfill and those substances are present in concentrations such that cleanup of the release from the Class Three landfill would provide no significant reduction in risk to actual or potential receptors; or,

(2) The constituent(s) is present in groundwater that:

(a) Does not currently meet the definition of an underground source of drinking water per South Carolina Water Classifications and Standards R.61-68; and,

(b) Is not hydraulically connected with waters to which the hazardous constituents are migrating, or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established in Section 258.55.j. or k. or,

(3) Remediation of the release(s) is technically impracticable; or,

(4) Remediation results in unacceptable cross-media impacts.

f. A determination by the Department pursuant to paragraph e. above of this section shall not affect the authority of the Department to require the permittee to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

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### 258.58. Implementation of the Corrective Action Program.

a. Based on the schedule established in Section 258.57.d. for initiation and completion of remedial activities, the permittee shall:

(1) Establish and implement a corrective action groundwater monitoring program that:

(a) At a minimum, meets the requirements of an assessment monitoring program in Section 258.55.;

(b) Indicates the effectiveness of the corrective action remedy; and,

(c) Demonstrates compliance with groundwater protection standards pursuant to Section 258.58.e;

(2) Implement the corrective action remedy selected in Section 258.57.; and,

(3) Take any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to Section 258.57. The following factors shall be considered by a permittee in determining whether interim measures are necessary:

(a) Time required to develop and implement a final remedy;

(b) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

(c) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(d) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(e) Weather conditions that may cause hazardous constituents to migrate or be released;

(f) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and,

(g) Other situations that may pose threats to human health and the environment.

b. A permittee may determine, based on information developed after implementation of the remedy or other information, that compliance with requirements of Section 258.57.b. are not being achieved through the remedy selected. In such cases, the permittee shall implement other methods or techniques that could practicably achieve compliance with the requirements, unless the permittee makes the determination under 258.c.

c. If the permittee determines that compliance with requirements in Section 258.57.b. cannot be practically achieved with currently available methods, the permittee shall:

(1) Obtain certification of a qualified professional and approval by the Department that compliance with requirements in Section 258.57.b. cannot be practically achieved with any currently available methods;

(2) Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment;

(3) Implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:

- (a) Technically practicable; and,
- (b) Consistent with the overall objective of the remedy; and,

(4) Notify the Department within 14 days that a report justifying the alternative measures prior to implementing the alternative measures has been placed in the operating record.

d. All solid wastes that are managed pursuant to a remedy required in Section 258.57., or an interim measure required in Section 258.58.a.(3), shall be managed in a manner:

- (1) That is protective of human health and the environment; and,
- (2) That complies with applicable Resource Conservation and Recovery Act (RCRA) requirements.

e. Remedies selected pursuant to Section 258.57. shall be considered complete when:

(1) The permittee complies with the groundwater protection standards established in Section 258.55.j. or k. at all points within the plume of contamination that lie beyond the groundwater monitoring well system established in Section 258.51.a.

(2) Compliance with the groundwater protection standards established in Section 258.55.j. or k. has been achieved by demonstrating that concentrations of Appendix V constituents have not exceeded the groundwater protection standard(s) for a period of three consecutive years using the statistical procedures and performance standards in Section 258.53.g. and h. The Department may specify an alternative length of time during which the permittee shall demonstrate that concentrations of Appendix V constituents have not exceeded the groundwater protection standard(s) taking into consideration:

- (a) Extent and concentration of the release(s);
- (b) Behavior characteristics of the hazardous constituents in the groundwater;
- (c) Accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and,
- (d) Characteristics of the groundwater.

(3) All actions required to complete the remedy have been satisfied.

f. Within 14 days of completion of the remedy, the permittee shall submit to the Department a certification signed by a qualified professional stating that the remedy has been completed in compliance with the requirements of Section 258.58.e.

g. Upon the Department's approval of the certification required in 258.58.f., the permittee shall be released from the requirements for financial assurance for corrective action.

258.59. Reserved.

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### Subpart F. Closure and Post-closure Care.

#### 258.60. Closure Criteria.

a. Owners/operators of all Class Three landfills shall install a final cover system that is designed to minimize infiltration and erosion. The final cover system shall be designed and constructed to:

(1) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less;

(2) Minimize infiltration through the closed Class Three landfill by the use of an infiltration layer that contains a minimum eighteen (18) inches of earthen material;

(3) Minimize erosion of the final cover by the use of an erosion layer that contains a minimum one (1) foot of earthen material that is capable of sustaining native plant growth; and,

(4) Have a storm water conveyance system for the landfill cap designed to ensure that the hydraulic head at any point does not exceed one (1) foot for a 24-hour period as the result of a 24-hour, 25-year storm event on all areas that have received final cover.

b. The Department may approve an alternative final cover design that includes:

(1) An infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in paragraphs a.(1) and a.(2) above; and,

(2) An erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in a.(3) above.

c. The permittee shall prepare a written closure plan that describes the steps necessary to close all Class Three landfills at any point during their active life in accordance with the cover design requirements in Section 258.60.a. or b., as applicable. The closure plan, at a minimum, shall include the following information:

(1) A description of the final cover, designed in accordance with Section 258.60.a. and the methods and procedures to be used to install the cover;

(2) An estimate of the largest area of the Class Three landfill ever requiring a final cover as required in Section 258.60.a. at any time during the active life;

(3) An estimate of the maximum inventory of wastes ever on-site over the active life of the landfill facility; and,

(4) A schedule for completing all activities necessary to satisfy the closure criteria in Section 258.60.

d. Prior to permit issuance, the permittee shall submit to the Department a closure plan. The closure plan shall be updated if any changes occur at the facility which require a deviation from the approved closure plan.

e. Prior to beginning closure of each Class Three landfill as specified in Section 258.60.f., a permittee shall submit a notice of intent to close to the Department to include a schedule outlining closure activities.

f. The permittee shall begin closure activities of each Class Three landfill no later than 30 days after the date on which the Class Three landfill receives the known final receipt of wastes, or if the Class Three landfill has remaining capacity and there is a reasonable likelihood that the Class Three landfill will receive additional wastes, no later than one year after the most recent receipt of wastes. Extensions beyond the one-year deadline for beginning closure may be granted by the Department if the permittee demonstrates that the Class Three landfill has the capacity to receive additional wastes and the permittee has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed Class Three landfill.

g. The permittee of all Class Three landfills shall complete closure activities of each Class Three landfill in accordance with the closure plan within 180 days following the beginning of closure as specified in Section 258.60.f. Extensions of the closure period may be granted by the Department if the permittee demonstrates that closure will take longer than 180 days and they have taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed Class Three landfill.

h. Following closure of each Class Three landfill, the permittee shall submit to the Department for approval certification, that is signed by a South Carolina registered professional engineer other than the design engineer, verifying that closure has been completed in accordance with the closure plan. A copy of this certification shall be placed in the operating record. The certification testing shall be conducted at a minimum rate of one (1) permeability test per acre and four (4) density/thickness tests per acre.

i. Within 30 days of the Department's issuance of final closure approval of a Class Three landfill, and using a form approved by the Department, the permittee shall record with the appropriate Register of Deeds, a notation in the record of ownership of the property - or some other instrument which is normally examined during title search - that will in perpetuity notify any potential purchaser of the property that the land or a portion thereof was used for the disposal of solid waste. This notice shall define the final boundaries of the waste disposal area including the latitude and longitude, identify the type, location, and quantity of solid waste disposed on the property, and advise potential owners of the property that there are land use restrictions.

j. The permittee may request permission from the Department to remove the notation from the deed if all wastes are properly removed from the facility and there is no environmental impact.

k. All facilities constructed with liner systems in accordance with this regulation shall install a final cover system which, at a minimum, consists of:

(1) A gas management layer or layers, or other gas management design, as necessary;

(2) Eighteen (18) inches of soil with a maximum permeability of  $1 \times 10^{-5}$  centimeters per second, and capable of providing a suitable foundation for the flexible membrane liner specified in paragraph (3) below;

(3) A 20-mil flexible membrane liner with a maximum permeability equal to or less than the bottom liner system, if HDPE is used as the FML, then a sixty (60) mil thickness is required;

(4) A drainage layer; and,

(5) A minimum of two feet of soil capable of supporting native vegetation.

l. All Class Three landfills closed utilizing a flexible membrane cover system shall be constructed to preclude precipitation migration into the landfill. All flexible membrane cover systems shall be constructed in accordance with the requirements of the approved engineering plans, reports, specifications and manufacturer's recommendations.

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m. The erosion layer shall be designed to maintain vegetative growth over the landfill by seeding with native grasses or other suitable cover. A 75% or greater vegetative ground cover with no substantial bare spots shall be established and maintained throughout the post-closure period.

n. The final cover system shall promote positive drainage by grading to create at least a 3%, but not greater than 5%, surface slope and a side slope that does not exceed three horizontal feet to one vertical foot, i.e., a 3:1 slope.

o. The Department may, on a case-by-case basis, approve other landfill closure designs, provided there is adequate information to demonstrate that the proposed design meets or exceeds the environmental and public health protection standards outlined in Subparts B, D and E of this regulation.

### 258.61. Post-closure Care Requirements.

a. Following closure of each Class Three landfill, the permittee shall conduct post-closure care. Post-closure care shall be conducted for a minimum 30 years, except as provided in paragraph b. below, and consist of at least the following:

(1) Maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(2) Maintaining and operating the leachate collection system in accordance with the requirements in 258.40., if applicable. The Department may allow the permittee to stop managing leachate if the permittee demonstrates to the Department's satisfaction that leachate no longer poses a threat to human health and the environment;

(3) Monitoring the groundwater in accordance with the requirements of Subpart E and maintaining the groundwater monitoring system, if applicable; and,

(4) Maintaining and operating the gas monitoring system in accordance with the requirements of Section 258.23.

b. The length of the post-closure care period may be:

(1) Increased by the Department if the Department determines that the lengthened period is necessary to protect human health and the environment; or,

(2) Decreased by the Department if the permittee can provide technical rationale that the decreased post-closure care period is sufficient to protect human health and the environment.

c. The permittee of all Class Three landfills shall prepare a written post-closure plan that includes, at a minimum, the following information:

(1) A description of the monitoring and maintenance activities required in paragraph a. for each Class Three landfill, and the frequency at which these activities will be performed;

(2) Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and,

(3) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the



requirements in this Part. The Department may approve any other disturbance of the containment system if the permittee demonstrates that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.

d. Prior to permit issuance, the permittee shall submit to the Department a post-closure plan for review and approval. The post-closure plan shall be updated if any changes occur at the facility which require a deviation from the approved post-closure plan.

e. Following completion of the post-closure care period for each Class Three landfill, the permittee shall submit to the Department, certification that is signed by a South Carolina registered professional engineer other than the design engineer, verifying that post-closure care has been completed in accordance with the post-closure plan.

258.62. - 258.69. (Reserved.)

Subpart G. Financial Assurance Criteria. (See Part I., Section E. of this regulation.)

Subpart H. Permit Application Requirements. Prior to the construction, operation, expansion or modification of a Class Three landfill, a permit shall be obtained from the Department.

1. Prior to submitting a permit application to the Department, the applicant shall satisfactorily complete the following:

a. Determination of Need. The applicant shall submit to the Department a request pursuant to Regulation 61-107.17. for determining need of the proposed landfill or landfill expansion, if applicable.

b. Consistency Determination. The applicant shall submit to the Department a request for a determination of consistency with items listed below.

(1) State and County/Region Solid Waste Management Plans. The permit applicant shall demonstrate consistency with the State Solid Waste Management Plan in effect at the time of submittal of the request for the Determination of Consistency. The permit applicant shall demonstrate consistency with the county/region plan in effect at the time of the submittal of the request for the Determination of Consistency. Class Three landfills managing solid waste generated solely in the course of normal operation on property under the same ownership or control as the Class Three landfill are not required to demonstrate consistency with the State and host County/Region Solid Waste Management Plans;

(2) Local zoning and land-use ordinances. Documentation demonstrating consistency with local zoning and land-use plans, e.g., zoning map, land-use map, and applicable part of the zoning ordinance shall be submitted to the Department; and,

(3) All other applicable local ordinances. Supporting documentation to include a copy of the ordinance shall be submitted to the Department.

(4) Buffer Requirement. The applicant shall demonstrate that it meets the buffer requirement set forth in Subpart B, Section 258.18. a of this Part at the time of submittal of the demonstration. The Department must notify by certified mail, return receipt requested, the applicant and any other affected person who requests to be notified of its determination of compliance with this buffer requirement.

c. If the Department's final determination of need is terminated, pursuant to R.61-107.17, all other determinations under Section H.1.a. and b. above will also be void.

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d. Landfill Siting Study. If the Department determines there is a need for the proposed landfill/expansion pursuant to R.61-107.17., the applicant shall conduct a landfill siting study and submit the results of the study to the Department for a site suitability determination. This study shall be used to eliminate those sites which, due to location restrictions, are unsuitable sites and to determine if the site conditions warrant further permitting activities. The landfill siting study shall include, at a minimum, the following steps:

(1) A preliminary hydrogeologic characterization report on the site, which contains readily available information on the regional, local, and site hydrogeology and groundwater use. The preliminary hydrogeologic characterization report shall be used to eliminate hydrogeologically unsuitable sites, and to determine if site conditions warrant further investigation;

(2) Pending approval of the preliminary hydrogeologic characterization report, a work plan detailing the site specific hydrogeologic investigations to be performed at the site shall be submitted to the Department for review and approval; and,

(3) Upon approval of the work plan specified in paragraph b. above, a site hydrogeologic characterization report shall be prepared and submitted to the Department detailing the findings of the site specific investigations. The landfill siting investigation shall ensure that the proposed landfill location complies with the location criteria outlined in Subpart B of this Part. During review by the Department of the suitability of the site based on the site hydrogeologic characterization report, the permit applicant may proceed with site design, and submittal of a groundwater monitoring plan as specified in Subpart H, Section 5.b.(14) below. Approval of the site shall be required before the Department will comment on engineering plans associated with the construction of the facility.

2. Administrative Review. Upon satisfactory completion of Subpart H.1. above, the applicant shall submit to the Department a complete permit application. The applicant shall submit to the Department a minimum of three copies of the following documents:

a. A completed permit application, on a form provided by the Department.

b. Tonnage Limit. The applicant shall submit to the Department a request for a determination of the maximum annual tonnage limit.

(1) Prior to the issuance of a permit for a new or expanded commercial Class Three landfill, the Department shall approve an allowable maximum annual tonnage limit based on the facility's design capacity, operational capacity, the expected operational life, and the planning area as determined by R.61-107.17, SWM: Demonstration-of-Need provided, however, that the maximum annual tonnage limit must not exceed the maximum yearly disposal rate pursuant to Regulation 61-107.17.

(2) Prior to issuance of a permit for a new or expanded noncommercial Class Three landfill, the Department shall approve a maximum annual tonnage limit based on the facility's design capacity, operational capacity, and the expected operational life.

c. A cost estimate for hiring a third party to close the sum of all active areas of the landfill requiring a final cover at any time during the operating life when the extent and manner of its operation would make closure the most expensive, as indicated in the closure plan. This estimate requires Department approval prior to the permittee establishing a financial assurance mechanism pursuant to Part I., Section E. of this regulation;

d. A Disclosure Statement pursuant to Part I, Section F.1. of this regulation. The Department may accept one disclosure statement for multiple facility permit applicants. This requirement shall not apply if the applicant is a local government or a region comprised of local governments;

e. Complete engineering plans and reports that are signed and stamped by a South Carolina Licensed Professional Engineer in accordance with Item 5. below;

f. The names and addresses of the owners of real property as they appear on the county tax maps as contiguous landowners of the proposed permit area.

3. When the submittal is administratively complete, the Department will notify, in writing, the applicant, the host local government if different from the applicant, and any other person who has made a written request for notification to the Department of the determination. Within 15 days of the Department's notification that the submittal is administratively complete:

a. The applicant for a Class Three landfill that will accept municipal solid waste shall submit to the Department demonstration and documentation that the facility issues negotiation process has been initiated in accordance with S.C. Code Section 44-96-470, to include an affidavit of publication of the public notice in the newspaper as required by Code Section 44-96-470(A).

b. The applicant for a Class Three landfill that will not accept municipal solid waste shall publish notice of the permit application pursuant to Part I, Section D.2. of the regulation, and submit an affidavit of publication of the public notice in the newspaper to the Department.

4. Upon completion of the facility issues negotiation process, the facilitator shall provide to the Department a summary of the results of the negotiations within 14 days of the certification of the facilitator's final report of resolution of the host local government as required by S.C. Code Section 44-96-470.

5. Technical Review. After determining that the permit application is administratively complete, the Department will conduct a Technical Review of the proposed project. The Department's technical review of the permit application will involve the documents and issues addressed in this Section. All individual drawings and plans shall be signed and stamped by a professional engineer duly licensed to practice in the State of South Carolina.

a. Engineering Drawings and Plans. All applications for new Class Three landfills and landfill expansions shall contain engineering drawings that set forth the proposed landfill location, property boundaries, adjacent land uses and construction details. Additional requirements for landfills with leachate recirculation are outlined in SubPart A, Section 258.4. of this Part. All construction drawings shall be bound and rolled and shall contain the following:

(1) A vicinity plan or map that shows the area within one mile of the property boundaries of the landfill in terms of: the existing and proposed zoning and land uses within that area at the time of permit application; and, residences, public and private water supply wells, known aquifers, surface waters (with quality classifications), access roads, bridges, railroads, airports, historic sites, and other existing and proposed man-made or natural features relating to the facility. The plan shall be on a scale of not greater than 500 feet per inch unless otherwise approved by the Department.

(2) Site plans that show: the landfill's property boundaries, as certified by an individual licensed to practice land surveying in the State of South Carolina; off-site and on-site utilities (such as, electric, gas, water, storm, and sanitary sewer systems), rights-of-way and easements; the names and addresses of abutting property owners; the location of soil borings, excavations, test pits, gas venting structures, wells, piezometers, environmental and facility monitoring points and devices, benchmarks and permanent survey markers; on-site buildings and appurtenances, fences, gates, roads, parking areas, drainage culverts, and signs; the delineation of the total landfill area including planned staged development of the landfill's construction and operation, and the lateral limits of any previously filled areas; the location and identification of the sources of cover materials; the location and identification of special waste handling areas; and site topography with five feet minimum contour intervals; and, any other relevant information as necessary for proper operation. The site plan shall

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show wetlands, property lines, existing wells, water bodies, and soil stockpiles that will be used as cover material. The plan shall show all buildings, to include residences and schools, on adjacent properties. The plan shall be on a scale of not greater than 200 feet per inch unless otherwise approved by the Department.

(3) Detailed plans of the landfill that clearly show in plan and cross-sectional views the following: the original, undeveloped site topography before excavation or placement of solid waste; the existing site topography, if different, including the location and approximate thickness and nature of any existing solid waste; plan view of the location of the seasonal high water table in relation to the bottom elevation of the proposed landfill; a cross sectional view of existing and final elevations, bottom elevation and deflected bottom elevation, and seasonal high water table; geologic units; known and interpolated bedrock elevations; the proposed limits of excavation and waste placement; other devices as needed to divert or collect surface water run-on or run-off; a plan and cross section view of fill progression for the life of the landfill; the final elevations and grades of the landfill; groundwater monitoring system; and, the building locations and appurtenances.

(4) Detailed plans of the sedimentation ponds. These plans shall clearly show in plan and cross sectional views the following: the existing site topography, the seasonal high water table, pond bottom elevation, permanent pool elevation, first flush elevation, maximum elevation for sedimentation clean-out, emergency spillway 100-yr storm elevation, riser pipe, antiseep collars, outlet protection, emergency spillway, dewatering riser, trash/antivortex rack, and sedimentation pond gauge legend.

(5) Detailed plans shall show: the location and placement of each liner system and each leachate collection system, locating and showing all critical grades and elevations of the collection pipe inverts and drainage envelopes, manholes, cleanouts, valves and sumps; and, leachate storage, treatment and disposal systems including the collection network and any treatment, pre-treatment, or storage facilities.

b. Engineering Report. An Engineering Report comprehensively describing the existing site conditions and an analysis of the landfill, including closure and post-closure criteria. Additional requirements for landfills with leachate recirculation are outlined in Section 5.c. below. All engineering reports shall be bound. This report shall:

(1) Specify the filling rate (in tons per day) of the landfill describing the number, types, and specifications of all necessary machinery and equipment needed to effectively operate the landfill at the prescribed filling rate;

(2) Contain a detailed description of all construction phases, including, but not limited to, the liner system, leachate collection system, and final cover system;

(3) Contain an analysis of the site to include:

(a) The name, address, and location of all adjacent landowners; the closest population centers;

(b) A description of the primary transportation systems and waste transportation routes to the landfill (i.e., highways, airports, railways, etc.); and,

(c) An analysis of the existing topography, surface water and subsurface geological conditions;

(4) Discuss the closure and post-closure maintenance and operation of the landfill which shall include, but not be limited to:

(a) A closure design consistent with the requirements contained in Section 258.60;

(b) A post-closure water quality monitoring program consistent with requirements contained in Section 258.61;

(c) Methane monitoring and control systems as needed;

(d) An operation and closure plan for the leachate collection, treatment, and storage facilities consistent with the requirements of this Part; and,

(e) A discussion of the future use of the site including the specific proposed or alternative use. Future uses shall conform to the stabilization plan, required by this regulation and shall not adversely affect the final cover system;

(5) Include appendices demonstrating compliance with pertinent local laws and regulations pertaining to air, land, noise, and water pollution, and other supporting data, including literature citations;

(6) Describe the materials and construction methods for the placement of: each monitoring well; all gas venting systems; each liner and leachate collection and removal system; leachate storage, treatment, and disposal systems; and, cover systems. This description also shall include a discussion of provisions to be taken to prevent frost action upon each liner system in areas where refuse has not been placed;

(7) Estimate the expected quantity of leachate to be generated, including:

(a) An annual water budget estimating leachate generation quantities, prepared for periods of time of initial operation, the interim between the last receipt of waste and application of final cover, and following facility closure. At a minimum, the following factors shall be considered in the preparation of the precipitation infiltration into the landfill: average monthly temperature; average monthly precipitation; evaporation; evapotranspiration, which should consider the vegetation type and root zone depth; surface/cover soil conditions and their relation to precipitation runoff which shall account for the surface conditions and soil moisture holding capacity; and, all other sources of moisture contribution to the landfill;

(b) Liner and leachate collection system efficiencies calculated using an appropriate analytical or numerical assessment. The factors to be considered in the calculation of collection system efficiency shall include, as a minimum, the saturated hydraulic conductivity of the liner, the liner thickness, the saturated hydraulic conductivity of the leachate collection system, the leachate collection system porosity, the base slope of the liner and leachate collection and removal system interface, the maximum flow distance across the liner and leachate collection and removal system interface to the nearest leachate collection pipe, and the estimated leachate generation quantity as computed in accordance with the requirements of the preceding subparagraph; and,

(c) Information gained from the collection efficiency calculations required in the preceding two paragraphs used to predict the static head of leachate on the liners, volume of leachate to be collected, and the volume of leachate that may permeate through the entire liner system on a monthly basis. This assessment shall also address the amount of leachate expected to be found in the leachate collection and removal system in gallons per acre per day;

(8) Include a design of the leachate storage facility based upon the leachate generation calculation. The design capacity for the leachate storage facility shall be based on the proposed leachate disposal method that allows sufficient lead time for either:

(a) Development of a separate set of engineering reports, plans and specifications for the construction and operation of a leachate treatment facility on-site and to obtain approval of this document before any discharge from the leachate storage facility; or,

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(b) Development of a plan to handle leachate destined for off-site treatment at a wastewater treatment facility, and to ensure that the amount of leachate stored on-site is not in excess of the storage capacity available. This plan shall include a legal document (contract, local permit, etc.) certifying acceptance of leachate from the operator of the wastewater treatment facility with all conditions stipulated by the operator of the wastewater treatment facility and all such stipulations addressed in the operations plan;

(9) Include a Construction Plan describing how the landfill will fulfill the requirements of protecting human health and the environment. The plan shall be presented in a manner sufficiently clear and comprehensive for use by the landfill's operator during the life of the landfill. It shall depict the fill progression with respect to site life and shall:

(a) Describe the site's preparation and fill progression for the life of the site in terms of method, depth, location and sequence;

(b) Contain a method of elevation control for the operator including the location and description of the permanent surveying benchmark at the site;

(c) Contain a fill progression discussion describing the placement and compacted thickness of daily, intermediate and final cover;

(d) For soils excavated during construction, identify the stockpile location and volume of soils; and,

(e) Contain a description of stormwater diversion from leachate collection system in areas of constructed cells that have not had waste placement;

(10) Include an Operation and Maintenance Report prepared to demonstrate how the landfill will meet all the operational requirements. This report shall include, at a minimum, the following:

(a) A description of the project's personnel requirements, stating personnel responsibilities and duties including discussions for training and lines of authority at the landfill;

(b) A description of all machinery and equipment to be used at the landfill, their authorized uses, and safety features;

(c) A description of the operational controls, including but not limited to, signs, hours and days of operation, landfill usage rules and regulations, and traffic flow controls;

(d) A description of the anticipated solid waste to be received per day, specifying the quantities received in tons per day, the fill progression of the landfill, and the method of solid waste placement and compaction, and the anticipated in-place density;

(e) A description of the landfill's solid waste receiving process, including inspection of incoming loads, identification of any waste streams to be excluded, and those wastes to receive special handling, or to require treatment before receipt, and a copy of the Special Waste Analysis and Implementation Plan (SWAIP);

(f) A description of the cover material management plan, specifying the types of cover material (daily, intermediate, and final), identifying the quantities required and sources for each cover material by type, including the method of cover material placement, compaction, and the anticipated density;

(g) A description of the project's gas monitoring program that discusses explosive gas generation at the landfill and the controls used to ensure that gas generated at the landfill will not create a hazard to health, safety, or property;

(h) A description of how winter and inclement weather operations will be conducted; and,

(i) If applicable, a description of the operation of a convenience station at the landfill for smaller private vehicles to unload refuse at an area other than the landfill's working face;

(11) Contain a Stabilization Plan. Measures shall be taken within 30 days of establishing soil stockpiles to stabilize the stockpiles not in active use. The Stabilization Plan shall address adequate seeding or other erosion control measures of the site and:

(a) Identify and locate existing vegetation to be retained and proposed vegetation to be used for cover, soil stockpiles, and other purposes;

(b) If appropriate, provide a seeding and planting schedule, including the identification of the rationale for the seed mixture choice and fertilization and procedures for seed application, mulching, and maintenance; and,

(c) Describe the planting plan and schedule which identifies plants to be used consistent with future use proposals;

(12) Include a Quality Assurance/Quality Control (QA/QC) Report prepared in accordance with accepted QA/QC practices. This report shall address the construction requirements set forth in this Part for each phase of construction and shall include, but not be limited to:

(a) A delineation of the QA/QC management organization, including the chain of command of the QA/QC inspectors and contractors;

(b) A description of the required level of experience and training for the contractor, his crew, and QA/QC inspectors for every major phase of construction, in sufficient detail to demonstrate that the installation methods and procedures required in this document are properly implemented; and,

(c) A description of the QA/QC testing protocols for every major phase of construction, including, but not limited to, the base liner system, leachate collection system, and final cover system. The QA/QC testing protocol shall include at a minimum: the frequency of inspection; field testing; sampling for laboratory testing, the sampling and field testing procedures and equipment to be utilized; the calibration of field testing equipment, the frequency of performance audits; the sampling size; the soils or geotechnical laboratory to be used; the laboratory procedures to be utilized; the calibration of laboratory equipment and QA/QC of laboratory procedures, the limits for test failure; and, a description of the corrective procedures to be used upon test failure;

(13) Include a Contingency Plan that addresses an organized, planned and coordinated, technically and financially feasible course of action to be taken in responding to contingencies during the construction and operation of the landfill. The plan shall provide a description of the criteria to be utilized in evaluating deficiencies, and selecting and implementing corrective actions. The plan shall, at a minimum, address:

(a) Procedures for responding to deficiencies during the construction phase resulting from circumstances including, but not limited to, inclement weather, defective materials or construction inconsistent with specifications as demonstrated by quality control testing;

(b) Actions to be taken during operation of the landfill with respect to: personnel and user

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safety; on-site personal injury; fires; explosive landfill gases detected on site; dust; litter; odor; noise; equipment breakdown; unusual traffic conditions; vectors; disposition of unapproved wastes; receipt of unauthorized wastes; releases of hazardous or toxic materials; groundwater and surface water contamination which may include public water supply contamination as a result of an accidental spill; and, the occurrence of the leachate storage facility being at or above capacity; and,

(c) Procedures to be used in response to: tank and surface impoundment spills or leakage, including removal of the waste and repair of such structures; and, the inability of the approved leachate treatment facility to accept leachate from the landfill for an indefinite period of time;

(14) Include a Groundwater Monitoring Plan. Upon obtaining approval of the investigations performed to satisfy the landfill siting study, a groundwater monitoring plan shall be submitted to the Department for review and approval. The groundwater monitoring plan shall detail the activities to be performed to ensure compliance with the requirements of Section 258.51., Section 258.53., and Section 258.54.;

(15) Include a Closure Plan in the permit application that details the activities to be performed to satisfy the requirements of Section 258.60.; and,

(16) Include a Post-closure Plan that details the activities to be performed to satisfy the requirements of Section 258.61.

c. South Carolina Coastal Zone Management Plan. The proposed landfill project shall be consistent with the South Carolina Coastal Zone Management Plan, if the landfill is located in the coastal zone as defined in accordance with the Coastal Zone Management Act.

d. Leachate Recirculation. All landfills proposing leachate recirculation shall comply with the requirements outlined in Subpart I below.

### Subpart I. Leachate Recirculation.

1. Leachate recirculation at Class Three Landfills shall be limited to facilities which meet the following criteria:

a. Leachate recirculation shall be allowed only in facilities that were designed and constructed with a minimum of a composite liner system or equivalent, and that comply with all requirements for a Class 3 Landfill.

b. Leachate recirculation shall be allowed only in facilities which have a leachate collection system capable of maintaining less than one foot of leachate head on the liner system at all times.

c. Leachate and gas condensate collected from the facility shall be the only liquids allowed for recirculation back into the landfill.

d. Leachate recirculation will not be allowed in an area of the footprint which exhibits evidence of significant leakage of the liner system. A buffer approved by the Department shall be maintained between the suspected leaking area and the area of leachate recirculation.

e. Leachate recirculation shall be allowed only at facilities which are designed and constructed to have final slopes which are no steeper than three to one.

f. The Class Three Landfill shall have sufficient storage capacity onsite to handle all leachate generated by the facility in the event leachate recirculation activities are suspended.



g. Contracts to handle the total leachate generated by the facility, or approved and permitted onsite treatment facilities capable of handling all leachate generated by the facility shall be maintained at all Class Three Landfills performing leachate recirculation.

h. The permittee shall have adequate landfill gas control measures in place at the start of leachate recirculation to control the migration of methane and to control the presence of any odors associated with leachate recirculation.

i. A minimum thickness of 30 feet of waste shall be placed in a new cell before leachate recirculation can begin.

2. Class Three landfills performing leachate recirculation shall maintain the following buffer distances from facility side slopes:

a. If leachate is applied to the landfill by way of spraying the leachate at the working face, at a minimum, a 50 foot buffer shall be maintained at all times.

b. If leachate is applied to the landfill by way of pumping into a trench system, at a minimum, a 100 foot buffer shall be maintained at all times.

c. If leachate is applied to the landfill by way of injecting the leachate into vertical wells installed into the waste, at a minimum, a 100 foot buffer shall be maintained at all times.

d. Other methods of leachate recirculation into the facility shall have buffer zones from side slopes approved by the Department.

e. The Department may require additional buffer distances should evidence exist that the current buffer zones are not sufficient to protect stability of the landfill, to prevent the outbreak of leachate seeps, or to otherwise protect human health and the environment.

3. Approval to perform leachate recirculation shall be requested by the facility and approved by the Department on an annual basis. Upon a request for annual renewal of approval to leachate recirculate, the facility shall submit to the Department the following information in the form of an annual report:

a. Analytical results from leachate testing for the parameters specified in Appendix VI;

b. A summary of daily leachate recirculation rates along with injection locations;

c. Monthly leachate recirculation system inspection records, training procedures, and notification procedures;

d. Monthly landfill leachate and gas generation rate (if applicable) results; and,

e. Any requests for modification to the leachate recirculation system.

4. If problems associated with leachate recirculation are identified, the permittee shall:

a. Take all steps necessary to ensure protection of human health and the environment; and,

b. Within seven days of detection of a problem with leachate recirculation, place in the operating record and submit to the Department a copy of all actions taken to remedy the problem, and any proposed changes to the leachate recirculation system to prevent future problems.

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5. Engineering Report. In addition to the permitting requirements outlined for Class Three Landfills in this Part, the permit application shall contain, at a minimum, the following:

a. Engineering drawings with detailed plans of the landfill that clearly show in plan and cross-sectional views the following: each leachate injection well; pipe lines; pipe inverts; drainage envelopes; manholes; cleanouts; valves; sumps; other devices as needed for leachate injection and monitoring, if applicable; and, a proposed waste saturation profile;

b. An engineering report containing a description of the existing site conditions and an analysis of the proposed landfill. The report shall:

(1) Contain design calculations using waste shear strength at 100% saturation that demonstrate that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site. Class Three landfills shall have a minimum 1.7 safety factor against failure, where the soil conditions are complex and when available strength data do not provide a consistent, complete, or logical picture of the strength characteristics. Where the soil conditions are uniform and high quality strength data provides a consistent, complete, and logical picture of the strength characteristics as determined by the Department, a minimum 1.2 safety factor against failure shall be used.

(2) Specify the leachate application rate of the landfill in gallons per day, specify the current leachate generation rates, and list the number, types, and specifications of all necessary machinery and equipment needed to effectively operate the application system at the landfill.

(3) Contain liner and leachate collection system efficiencies calculated using an appropriate analytical or numerical assessment. The factors to be considered in the calculation of collection system efficiency shall include, at a minimum, the saturated hydraulic conductivity of the liner, the liner thickness, the saturated hydraulic conductivity of the leachate collection system, the leachate collection system porosity, the base slope of the liner and leachate collection and removal system interface, the maximum flow distance across the liner and leachate collection and removal system interface to the nearest leachate collection pipe, the estimated leachate generation, including both natural quantity and the approved injection rate. The estimated leachate generation shall be used to predict the static head of leachate on the liners, volume of leachate to be collected, and the volume of leachate that may permeate through the entire liner system on a monthly basis. This assessment shall also address the amount of leachate expected to be found in the leachate collection and removal system in gallons per acre per day.

(4) Contain a leachate recirculation operation and maintenance report for the landfill that includes, at a minimum, the following:

(a) A description of the project's personnel requirements, stating personnel responsibilities and duties including discussions for training and lines of authority at the landfill; and,

(b) A description of all machinery and equipment to be used at the landfill for leachate recirculation, their authorized uses, and safety features.

(5) Contain a contingency plan discussing the course of action to be taken in responding to fires, leachate seeps, leachate releases, and other pertinent situations.

(6) Contain a description of the method for collecting and controlling landfill gases based on calculations of the estimated landfill gas generation during life of the landfill.

(7) Contain a demonstration of adequate storage capacity for all leachate generated at the site.

(8) Contain analytical results from leachate testing for the parameters specified in Appendix VI. prior to the start of leachate recirculation at the site.

Subpart J. Permit Conditions and Permit Review.

1. Application forms for permits shall be provided by the Department and shall be submitted with sufficient detail to support a judgment that operation of the disposal system will not violate the laws and regulations of the State of South Carolina. The application shall be signed by the permittee of the Class Three landfill. The approved application and associated plans and drawings shall be an enforceable part of the permit. Permits shall be effective for the design and operational life of the facility.

2. Prior to issuance of a permit for major modifications, as determined by the Department, and for new construction, the Department will make the draft permit available for public review and comment pursuant to Part I, Section D of this regulation.

3. The Department shall review the permit for each Class Three landfill at least once every five years, unless otherwise specified by the Department. Upon notification from the Department, the landfill shall submit to the Department a topographic survey map of the site that shows the contours at the beginning and the end of the period since the last permit review.

a. If, upon review, the Department finds that material or substantial violations of the permit demonstrate the permittee's disregard for, or inability to comply with, applicable laws, regulations, or requirements, and would make continuation of this permit not in the best interests of human health and safety or the environment, the Department may, after a hearing, amend or revoke the permit, as appropriate and necessary. When a permit is reviewed, the Department shall include additional limitations, standards, or conditions when the technical limitations, standards, or regulations on which the original permit was based have been changed by statute or amended by regulation.

b. The Department may amend or attach conditions to a permit when:

(1) There is a significant change in the manner and scope of operation which may require new or additional permit conditions or safeguards to protect human health and safety and the environment;

(2) The investigation has shown the need for additional equipment, construction, procedures, and testing to ensure the protection of human health and safety and the environment; and,

(3) The amendment is necessary to meet changes in applicable regulatory requirements.

4. Any permits issued pursuant to this regulation shall not be valid after a period of twelve (12) months from the effective date of the permit, if construction of the facility has not begun by the end of this period unless granted a variance by the Department.

Subpart K. Transfer of Ownership. The Department may, upon written request, transfer a permit to a new permittee where no other change in the permit is necessary pursuant to Part I, F.2.c. of this regulation.

Appendix I  
ACCEPTABLE WASTE FOR CLASS TWO LANDFILLS

The following types of waste have been determined by the Department to be environmentally safe and may be accepted at Class Two Landfills unless specifically prohibited by the Department. Acceptable wastes may be generated by construction, demolition, land-clearing, industrial, and/or manufacturing activities, and/or obtained from segregated commercial waste. However, any of the materials listed in this appendix that have been contaminated by any hazardous constituent listed in the S.C. Hazardous Waste Management Regulations 61-79.261, or petroleum products, are prohibited from disposal at a Class Two Landfill.

Acceptable Land-Clearing Debris Such As:

- |                                  |               |
|----------------------------------|---------------|
| . brush & limbs                  | . root mats   |
| . earthen material, e.g., clays, | . top soil    |
| sands, gravels, & silts          | . tree stumps |
| . logs                           | . vegetation  |
| . rock                           |               |

Acceptable Debris Such As:

- |   |   |
|---|---|
| . asbestos-containing material <sup>2</sup> | . other items physically attached to structure, |
| . bricks & masonry blocks                   | e.g., signs, mailboxes, awning, vinyl siding    |
| . cardboard                                 | . other structural fabrics                      |
| . dry paint cans                            | . packaging material                            |
| . dry caulking tubes                        | . painted waste (includes lead-based paint)     |
| . fiberglass matting                        | . pallets & crates                              |
| . floor covering                            | . pipes   |
| . glass                                     | . plaster & plasterboard                        |
| . glass wire (optical fiber)                | . polyfiberglass (highly polished, cured        |
| . hardened asphaltic concrete <sup>3</sup>  | material used for shower stalls, roofing, etc.) |
| . hardened cement                           | . shingles & roofing materials                  |
| . hardened concrete (may include rebar)     | . structural steel                              |
| . insulation material                       | . tile (floor, wall & ceiling)                  |
| . lumber (includes treated lumber)          | . tires <sup>4</sup>                            |
| . mirrors                                   | . tubing  |
|   | . wall coverings                                |

Acceptable Brown Goods:

- |               |                                       |
|---------------|---------------------------------------|
| . box springs | . furniture including lawn furniture: |
| . mattresses  | - laminated                           |

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<sup>2</sup> Friable and nonfriable asbestos-containing material shall be disposed in a designated area and covered immediately upon receipt with at least six inches (6") of acceptable material. Prior to disposal of asbestos-containing material, the generator of the asbestos waste shall obtain a "permission for disposal" letter from the Department's Bureau of Air Quality (BAQ) and submit this letter to the landfill. All landfills accepting asbestos-containing material for disposal are subject to the BAQ regulation 61-86.1 Standards of Performance for Asbestos Abatement Operations, and the National Emissions Standards for Hazardous Air Pollutants[40CFR61, Subpart M;]

<sup>3</sup> Tar sealant material is not acceptable.

<sup>4</sup> Tires shall be reduced in size by a minimum of one-eighth the size of the original tire prior to landfill disposal.

- . wooden swing sets
  - . nonmotorized bulky outdoor children's toys
- metal<sup>5</sup>
  - plastic
  - PVC
  - vinyl
  - wooden

Animal Carcasses Acceptable Under Following Conditions:

- . Animal carcasses shall be buried in a separate designated area. The facility shall submit to the Department a written request to dispose of animal carcasses including a plan that shows the portion of the landfill to be used for this type of disposal. The permit will be modified to reflect the designated disposal area, and;
- . Animal carcasses shall be buried and covered with at least twelve inches (12") of dirt immediately upon receipt.
- . Hydrated lime shall be added to the carcass and surrounding area before cover is applied to control bacterial growth and odor.
- . Mass kill burial shall not be acceptable at Class Two Landfills unless approved by the Department prior to disposal.

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<sup>5</sup>The Department recommends that all metal furniture be recycled if feasible.

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### Appendix II UNACCEPTABLE WASTE FOR CLASS TWO LANDFILLS

The following types of waste have been determined to pose a potential threat to the environment and shall not be accepted at Class Two Landfills. Wastes are considered to be contaminated if a waste has come into contact with and maintains a residue or characteristic of the contaminated materials as described herein.

#### Any Waste That Has Been Contaminated by Petroleum Products Such As:

- |                            |                        |
|----------------------------|------------------------|
| . absorbent (vermiculite)  | . paper towels & rags  |
| . concrete                 | . pipes                |
| . containers               | . soil                 |
| . filters (oil, etc.)      | . storage tanks        |
| . mechanical/machine parts | . tar sealant material |

#### Any Waste That Has Been Contaminated by Polychlorinated Biphenyls (PCBs) Such As:

- |  |                         |
|--|-------------------------|
| . any waste that has come in contact with any liquid-containing PCBs | . electrical components |
| . capacitors   | . lighting ballasts     |
|  | . transformers          |

#### Any Waste That Has Been Contaminated by Organic Chemicals or Solvents (industrial plants, chemical plants, laboratories, construction sites, etc.) Such As:

- |                                 |   |
|---------------------------------|---|
| . absorbent                     | . mechanical/machine parts (valves, etc.) |
| . adhesives                     | . paint thinner                           |
| . caulking compounds            | . pipes                                   |
| . cement                        | . pumps                                   |
| . containers (packaging)        | . soil                                    |
| . filters                       | . storage tanks                           |
| . flooring (wood, carpet, etc.) | . tar                                     |
| . glazing compound              | . vats                                    |

#### Any Waste That Has Been Contaminated by Preservatives, (pentachlorophenol & creosote) Such As:

- |  |                 |
|--|-----------------|
| . containers                                       | . railroad ties |
| . mechanical parts used in manufacturing processes | . soil          |
|  | . utility poles |

#### Any Waste That Has Been Contaminated by Pesticides/Herbicides Such As:

- |                                  |                       |
|----------------------------------|-----------------------|
| . concrete                       | . pallets & crates    |
| . containers (packaging)         | . soil                |
| . equipment used for application | . vats                |
| . mechanical/machine parts       | . wood (storage area) |

#### Miscellaneous Waste Such As:

- . lamps<sup>6</sup>
- . liquid waste (paint, paint thinner, etc.)
- . unpolished fiberglass (Bondo)
- . wastes/substances determined by the Department to be unacceptable

Cathode Ray Tubes (CRTs) and Electronic Equipment Such As:

- . cameras
- . compact discs (CDs)
- . computers
- . computer monitors
- . communication & navigation equipment
- . Digital Versatile Disc (DVDs)
- . displays
- . hand-held video game machines
- . mainframes
- . microwave ovens
- . personal digital assistants (PDAs)
- . radios
- . stereos
- . televisions
- . test equipment (oscilloscopes, etc.)
- . video cassette recorders (VCRs)
- . video game machines

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<sup>6</sup>Fluorescent lamps and high intensity discharge (HID) lamps such as metal halide and mercury vapor lamps.

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### APPENDIX III

#### CONSTITUENTS FOR DETECTION MONITORING FOR CLASS TWO LANDFILLS

Common name	CAS RN
pH	
Specific Conductance	
Temperature	
<u>Inorganic Constituents:</u>	
(1) Arsenic	(Total)
(2) Barium	(Total)
(3) Cadmium	(Total)
(4) Chromium	(Total)
(5) Lead	(Total)
(6) Mercury	(Total)
(7) Selenium	(Total)
(8) Silver	(Total)
(9) Chloride	(Total)
(10) Nitrate	(Total)
(11) Sulfate	(Total)
<u>Organic Constituents:</u>	
(12) Benzene	71-43-2
(13) Carbon tetrachloride	56-23-5
(14) Chlorobenzene	108-90-7
(15) Chloroform; Trichloromethane	67-66-3
(16) 1,1-Dichloroethane; Ethylidene chloride	75-34-3
(17) 1,2-Dichloroethane; Ethylene dichloride	107-06-2
(18) 1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride	75-35-4
(19) cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2
(20) trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene	156-60-5
(21) Ethylbenzene	100-41-4
(22) Methylene chloride	75-09-2
(23) Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
(24) Toluene	108-88-3
(25) 1,1,1-Trichloroethane; Methylchloroform	71-55-6
(26) 1,1,2-Trichloroethane	79-00-5
(27) Trichloroethylene; Trichloroethene	79-01-6
(28) Vinyl chloride	75-01-4
(29) Xylenes	1330-20-7



Appendix IV  
 CONSTITUENTS FOR DETECTION MONITORING FOR CLASS THREE LANDFILLS

<u>Common name</u> <sup>7</sup>	<u>CAS RN</u> <sup>8</sup>
pH	
Specific Conductance	
<u>Inorganic Constituents:</u>	
(1) Antimony	(Total)
(2) Arsenic	(Total)
(3) Barium	(Total)
(4) Beryllium	(Total)
(5) Cadmium	(Total)
(6) Chromium	(Total)
(7) Cobalt	(Total)
(8) Copper	(Total)
(9) Lead	(Total)
(10) Nickel	(Total)
(11) Selenium	(Total)
(12) Silver	(Total)
(13) Thallium	(Total)
(14) Vanadium	(Total)
(15) Zinc	(Total)
<u>Organic Constituents:</u>	
(16) Acetone	67-64-1
(17) Acrylonitrile	107-13-1
(18) Benzene	71-43-2
(19) Bromochloromethane	74-97-5
(20) Bromodichloromethane	75-27-4
(21) Bromoform; Tribromomethane	75-25-2
(22) Carbon disulfide	75-15-0
(23) Carbon tetrachloride	56-23-5
(24) Chlorobenzene	108-90-7
(25) Chloroethane; Ethyl chloride	75-00-3
(26) Chloroform; Trichloromethane	67-66-3
(27) Dibromochloromethane; Chlorodibromomethane	124-48-1
(28) 1,2-Dibromo-3-chloropropane; DBCP	96-12-8
(29) 1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4
(30) o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1
(31) p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7
(32) trans-1,4-Dichloro-2-butene	110-57-6
(33) 1,1-Dichloroethane; Ethylidene chloride	75-34-3
(34) 1,2-Dichloroethane; Ethylene dichloride	107-06-2
(35) 1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride	75-35-4
(36) cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2
(37) trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene	156-60-5

<sup>7</sup>Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>8</sup>Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.

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(38) 1,2-Dichloropropane; Propylene dichloride	78-87-5
(39) cis-1,3-Dichloropropene	10061-01-5
(40) trans-1,3-Dichloropropene	10061-02-6
(41) Ethylbenzene	100-41-4
(42) 2-Hexanone; Methyl butyl ketone	591-78-6
(43) Methyl bromide; Bromomethane	74-83-9
(44) Methyl chloride; Chloromethane	74-87-3
(45) Methylene bromide; Dibromomethane	74-95-3
(46) Methylene chloride; Dichloromethane	75-09-2
(47) Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
(48) Methyl iodide; Iodomethane	74-88-4
(49) 4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
(50) Styrene	100-42-5
(51) 1,1,1,2-Tetrachloroethane	630-20-6
(52) 1,1,2,2-Tetrachloroethane	79-34-5
(53) Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
(54) Toluene	108-88-3
(55) 1,1,1-Trichloroethane; Methylchloroform	71-55-6
(56) 1,1,2-Trichloroethane	79-00-5
(57) Trichloroethylene; Trichloroethene	79-01-6
(58) Trichlorofluoromethane; CFC-11	75-69-4
(59) 1,2,3-Trichloropropane	96-18-4
(60) Vinyl acetate	108-05-4
(61) Vinyl chloride	75-01-4
(62) Xylenes	1330-20-7

Appendix V  
LIST OF HAZARDOUS INORGANIC AND ORGANIC CONSTITUENTS

<u>Common name</u> <sup>9</sup>	<u>CAS RN</u> <sup>10</sup>
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Acetone	67-64-1
Acetonitrile; Methyl cyanide	75-05-8
Acetophenone	98-86-2
2-Acetylaminofluorene; 2-AAF.	53-96-3
Acrolein	107-02-8
Acrylonitrile	107-13-1
Aldrin	309-00-2
Allyl chloride	107-05-1
4-Aminobiphenyl	92-67-1
Anthracene	120-12-7
Antimony	(Total)
Arsenic	(Total)
Barium	(Total)
Benzene	71-43-2
Benzo[a]anthracene; Benzanthracene	56-55-3
Benzo[b]fluoranthene	205-99-2
Benzo[k]fluoranthene	207-08-9
Benzo[ghi]perylene	191-24-2
Benzo[a]pyrene	50-32-8
Benzyl alcohol	100-51-6
Beryllium	(Total)
alpha-BHC	319-84-6
beta-BHC	319-85-7
delta-BHC	319-86-8
gamma-BHC; Lindane	58-89-9
Bis(2-chloroethoxy)methane	111-91-1
Bis(2-chloroethyl) ether; Dichloroethyl ether	111-44-4
Bis-(2-chloro-1-methylethyl) ether; 2,2[prime]-Dichlorodiisopropyl ether; DCIP. <sup>11</sup>	108-60-1
Bis(2-ethylhexyl) phthalate	117-81-7
Bromochloromethane; Chlorobromomethane	74-97-5
Bromodichloromethane; Dibromochloromethane	75-27-4
Bromoform; Tribromomethane	75-25-2
4-Bromophenyl phenyl ether	101-55-3
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7
Cadmium	(Total)
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chlordane	footnote <sup>12</sup>

<sup>9</sup>Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>10</sup>Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.

<sup>11</sup>This substance is often called bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, propane, 2,2[sec]-oxybis[2-chloro- (CAS RN 39638-32-9).

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p-Chloroaniline	106-47-8
Chlorobenzene	108-90-7
Chlorobenzilate	510-15-6
p-Chloro-m-cresol; 4-Chloro-3-methylphenol	59-50-7
Chloroethane; Ethyl chloride	75-00-3
Chloroform; Trichloromethane	67-66-3
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
4-Chlorophenyl phenyl ether	7005-72-3
Chloroprene	126-99-8
Chromium	(Total)
Chrysene	218-01-9
Cobalt	(Total)
Copper	(Total)
m-Cresol; 3-Methylphenol	108-39-4
o-Cresol; 2-Methylphenol	95-48-7
p-Cresol; 4-Methylphenol	106-44-5
Cyanide	57-12-5
2,4-D; 2,4-Dichlorophenoxyacetic acid	94-75-7
4,4[prime]-DDD	72-54-8
4,4[prime]-DDE	72-55-9
4,4[prime]-DDT	50-29-3
Diallate	2303-16-4
Dibenz[a,h]anthracene	53-70-3
Dibenzofuran	132-64-9
Dibromochloromethane; Chlorodibromomethane.	124-48-1
1,2-Dibromo-3-chloropropane; DBCP.	96-12-8
1,2-Dibromoethane; Ethylene dibromide; EDB.	106-93-4
Di-n-butyl phthalate	84-74-2
o-Dichlorobenzene; 1,2- Dichlorobenzene.	95-50-1
m-Dichlorobenzene; 1,3- Dichlorobenzene	541-73-1
p-Dichlorobenzene; 1,4- Dichlorobenzene.	106-46-7
3,3[prime]-Dichlorobenzidine	91-94-1
trans-1,4-Dichloro-2-butene	110-57-6
Dichlorodifluoromethane; CFC 12	75-71-8
1,1-Dichloroethane; Ethylidene chloride	75-34-3
1,2-Dichloroethane; Ethylene dichloride.	107-06-2
1,1-Dichloroethylene; 1,1-Dichloroethene	75-35-4
Vinylidene chloride cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	156-60-5
2,4-Dichlorophenol	120-83-2
2,6-Dichlorophenol	87-65-0
1,2-Dichloropropane; Propylene dichloride.	78-87-5
1,3-Dichloropropane; Trimethylene dichloride	142-28-9
2,2-Dichloropropane; Isopropylidene chloride	94-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6
Dieldrin	60-57-1

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<sup>12</sup>Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6).

Diethyl phthalate	84-66-2
O,O-Diethyl O-(2-pyrazinyl) phosphorothioate	297-97-2
Dimethoate	60-51-5
p-(Dimethylamino)azobenzene	60-11-7
7,12-Dimethylbenz[a]anthracene	57-97-6
3,3[prime]-Dimethylbenzidine	119-93-7
alpha, alpha-Dimethylphenethylamine	122-09-8
2,4-Dimethylphenol; m-Xylenol	105-67-9
Dimethyl phthalate	131-11-3
m-Dinitrobenzene	99-65-0
4,6-Dinitro-o-cresol 4,6-Dinitro-2- methylphenol	534-52-1
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
Dinoseb; DNBP; 2-sec-Butyl-4,6- methylphenol dinitrophenol.	88-85-7
Di-n-octyl phthalate	117-84-0
Diphenylamine	122-39-4
Disulfoton	298-04-4
Endosulfan I	959-98-8
Endosulfan II	33213-65-9
Endosulfan sulfate	1031-07-8
Endrin	72-20-8
Endrin aldehyde	7421-93-4
Ethylbenzene	100-41-4
Ethyl methacrylate	97-63-2
Ethyl methanesulfonate	62-50-0
Famphur	52-85-7
Fluoranthene	206-44-0
Fluorene	86-73-7
Heptachlor	76-44-8
Heptachlor epoxide	1024-57-3
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Hexachloropropene	1888-71-7
2-Hexanone; Methyl butyl ketone	591-78-6
Indeno(1,2,3-cd)pyrene	193-39-5
Isobutyl alcohol	78-83-1
Isodrin	465-73-6
Isophorone	78-59-1
Isosafrole	120-58-1
Kepone	143-50-0
Lead	(Total)
Mercury	(Total)
Methacrylonitrile	126-98-7
Methapyrilene	91-80-5
Methoxychlor	72-43-5
Methyl bromide; Bromomethane	74-83-9
Methyl chloride; Chloromethane	74-87-3
3-Methylcholanthrene	56-49-5
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
Methyl iodide; Iodomethane	74-88-4

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Methyl methacrylate	80-62-6
Methyl methanesulfonate	66-27-3
2-Methylnaphthalene	91-57-6
Methyl parathion; Parathion methyl	298-00-0
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
Methylene bromide; Dibromomethane	74-95-3
Methylene chloride; Dichloromethane	75-09-2
Naphthalene	91-20-3
1,4-Naphthoquinone	130-15-4
1-Naphthylamine	134-32-7
2-Naphthylamine	91-59-8
Nickel	(Total)
o-Nitroaniline; 2-Nitroaniline	88-74-4
m-Nitroaniline; 3-Nitroaniline	99-09-2
p-Nitroaniline; 4-Nitroaniline	100-01-6
Nitrobenzene	98-95-3
o-Nitrophenol; 2-Nitrophenol	88-75-5
p-Nitrophenol; 4-Nitrophenol	100-02-7
N-Nitrosodi-n-butylamine	924-16-3
N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	62-75-9
N-Nitrosodiphenylamine	86-30-6
N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine	621-64-7
N-Nitrosomethylethylamine	10595-95-6
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
5-Nitro-o-toluidine	99-55-8
Parathion	56-38-2
Pentachlorobenzene	608-93-5
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Phenacetin	62-44-2
Phenanthrene	85-01-8
Phenol	108-95-2
p-Phenylenediamine	106-50-3
Phorate	298-02-2
Polychlorinated biphenyls; PCBs;.	Footnote <sup>13</sup>
Pronamide	23950-58-5
Propionitrile; Ethyl cyanide	107-12-0
Pyrene	129-00-0
Saffrole	94-59-7
Selenium	(Total)
Silver	(Total)
Silvex; 2,4,5-TP	93-72-1
Styrene	100-42-5
Sulfide	18496-25-8
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid	93-76-5

<sup>13</sup>Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12674-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN 12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN 11096-82-5).

2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6
1,2,4,5-Tetrachlorobenzene	95-94-3
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
2,3,4,6-Tetrachlorophenol	58-90-2
Thallium	(Total)
Tin	(Total)
Toluene	108-88-3
o-Toluidine	95-53-4
Toxaphene	Footnote <sup>14</sup>
1,2,4-Trichlorobenzene	120-82-1
1,1,1-Trichloroethane; Methylchloroform.	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethylene; Trichloroethene	79-01-6
Trichlorofluoromethane; CFC-11	75-69-4
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
1,2,3-Trichloropropane	96-18-4
O,O,O-Triethyl phosphorothioate	126-68-1
sym-Trinitrobenzene	99-35-4
Vanadium	(Total)
Vinyl acetate	108-05-4
Vinyl chloride; Chloroethene	75-01-4
Xylene (total)	Footnote <sup>15</sup>
Zinc	(Total)

<sup>14</sup>Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

<sup>15</sup>Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7).

Appendix VI  
LEACHATE TESTING PARAMETERS FOR CLASS THREE LANDFILLS

1. BOD
2. TOC
3. COD
4. Total Suspended Solids
5. TKN Nitrogen
6. Ammonia Nitrogen
7. Nitrate
8. Total Phosphorus
9. Alkalinity as CaCO<sub>3</sub>
10. Total Hardness as CaCO<sub>3</sub>
11. pH
12. Calcium
13. Magnesium
14. Potassium
15. Sodium
16. Chloride
17. Sulfate
18. Total Iron
19. VOC's Listed in Appendix III

**Fiscal Impact Statement:**

If the State or a political subdivision owns a solid waste landfill, it may incur addition costs related to groundwater monitoring, etc., based on the type of landfill.

**Statement of Need and Reasonableness:**

This statement was determined by staff analysis pursuant to S.C. Code Ann. Section 1-23-115.

**DESCRIPTION OF THE REGULATION:**

R.61-107. Solid Waste Management:

(1) Repeal of sections 61-107.11 SWM: Construction, Demolition, and Land-clearing Debris Landfills, 61-107.13 SWM: Municipal Solid Waste Incinerator Ash Landfills, 61-107.16 SWM: Industrial Solid Waste Landfills, and 61-107.258 SWM: Municipal Solid Waste Landfills.

(2) Addition of a new section 61-107.19 SWM: Solid Waste Landfills and Structural Fill to R.61-107.19, Solid Waste Management, that encompasses all solid waste landfills and structural fill activities.

Purpose: The purpose of this regulation is to update, streamline and clarify requirements addressing disposal of solid waste, provide better protection for the environment and public health, facilitate public notification and input in the early stages of the permitting process and resolve issues prior to large financial expenditures. This regulation will broaden disposal options and should help alleviate open dumping.

Legal Authority: S.C. Code Ann. Sections 44-96-10 et seq.



Plan for Implementation: The amendment will simultaneously repeal Sections 11, 13, 16, and 258, and incorporate the new Section 19 within R.61-107 Solid Waste Management upon approval of the Board of Health and Environmental Control, the General Assembly and publication in the *State Register*. The amended regulation will be implemented in the same manner in which other regulations are implemented.

**DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFIT:**

This amendment is needed to streamline solid waste disposal regulations; it will reduce the number of solid waste landfill regulation sections in R.61-107 from four to one section. This amendment is needed to help alleviate open dumping by providing a viable mechanism for structural fill using a suitable waste stream. This amendment is needed to provide better protection of the environment and public health.

This amendment is reasonable because it facilitates public input in the early stages of the permitting process and resolves issues prior to large financial expenditures by the applicant. This proposed amendment is reasonable because it bases disposal on the chemical and physical properties of the waste stream instead of the source of generation which allows for more disposal options while still maintaining protection of the environment and public health. A workgroup comprised of representatives from S.C. industries to include the solid waste disposal industry (small and large businesses), environmental consultants, Chamber of Commerce Technical Committee, Carolinas Association of General Contractors, S.C. Pulp & Paper Association, S.C. Manufacturers Alliance, Association of Counties, S.C. utilities, and Department staff with representatives from groundwater, engineering, compliance, regions, management, and regulation development programs developed the criteria on which the amendment is based. Involving the regulated community during the early stages of development of regulation criteria tends to yield a regulation that is reasonable and addresses as many concerns and issues as possible and still provides protection of the environment.

**DETERMINATION OF COSTS AND BENEFITS:**

**Costs:**

- Groundwater monitoring for Class Two landfills involves installation of the system, semi-annual (minimum) monitoring costs, and post-closure care costs.
- Financial assurance for Class Two landfills will impact noncommercial landfills that do not have a financial assurance mechanism. (Most existing Class Two landfills already have financial assurance in place.)
- Leachate recirculation is optional, therefore cost is incurred only when it is added to the facility.

**Benefits:**

- This amendment provides more flexibility for disposal with emphasis on the type of waste instead of the source of generation of the waste. Some landfills will be able to take a wider range of waste types.
- The addition of groundwater monitoring for Class Two landfills will provide a detection mechanism for ensuring better protection of the environment and public health.
- The addition of structural fill options should help alleviate open dumping and also encourage reuse of specific items that would otherwise require landfilling.
- Landfills electing to use leachate recirculation will see savings after the initial cost for installation of the system relating to the handling/disposal of leachate, i.e., it will reduce the need for transporting leachate off-site or sending it to a publicly owned treatment works.
- It will consolidate, clarify, update and streamline solid waste regulations that address landfilling, thus making solid waste disposal requirements more user-friendly for the regulated community.
- The amendment includes important improvements in the permitting process that provides early notice to the public and resolves issues prior to large financial expenditures for plans, etc.

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### UNCERTAINTIES OF ESTIMATES:

The Department is unable to estimate these costs with precision since the size and location of the landfill will determine the number of monitoring wells required which will impact the costs of monitoring and the amount of financial assurance needed for Class Two landfills.

### EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH:

Open dumping has historically been a major problem in the State. By adding a controlled mechanism for use of specific items as structural fill material, open dumping should greatly decrease and some items that were disposed in a landfill can be reused as structural fill. The addition of groundwater monitoring for Class Two landfills will afford better protection of the environment and public health. Any potential problems with a landfill can be detected early-on with groundwater monitoring and addressed before neighboring wells are impacted. Basing disposal on the waste stream itself instead of the source of generation will make better use of landfill space and may reduce the need for additional landfills in the future.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THIS AMENDMENT IS NOT IMPLEMENTED.

Open dumping will continue to be a major problem in S.C. as will all the problems associated with it: defacement of property; fire hazards; potential for groundwater contamination associated with improper disposal; attraction of vectors; and nuisances. The Department will continue to spend an inordinate amount of time dealing with open dumps. The majority of solid waste related complaints received in the EQC Regional Offices are related to open dumping. There is considerable cost associated with clean-up of open dumps. Department resources/man-hours spent on open dumping cases involve district, enforcement, compliance, and criminal investigation staff.

The lack of groundwater monitoring at Class Two type landfills may allow groundwater problems associated with a landfill to become more extensive with greater impact on neighboring properties and greater cleanup costs. The public repeatedly expresses concern to staff at public meetings about the uncertainty of knowing if ground water is being impacted by landfills that are not currently required to monitor groundwater.

### **Statement of Rationale:**

Department staff determined during review of R.61-107 that it was appropriate to revise the regulation to streamline solid waste disposal regulations, broaden solid waste disposal options, take steps to help alleviate open dumping by providing a viable mechanism for structural fill using a suitable waste stream, and incorporate measures to provide for better protection of the environment and public health.

Currently, there are four sections of R.61-107 that address solid waste landfills. The proposed new section (R.61-107.19) that will replace the four existing sections is comprehensive and combines requirements for all solid waste landfilling issues into one new section. It updates, streamlines, and clarifies requirements addressing disposal of solid waste. It also broadens disposal options by basing disposal on the waste stream itself instead of the source of generation of the waste stream as required by current regulation. This will allow many landfills to take a broader range of waste streams.

On-going problems with open dumping influenced staff to broaden disposal options and provide a mechanism for using specific items as structural fill material. The addition of the new text regarding short-term structural fill activities should help alleviate current problems with open dumping and also allow the use of specific items as outlined in the proposed text for a beneficial purpose.

This proposed new section also includes changes to reflect updates to Title 40 of the Code of Federal Regulations, Part 258 (40CFR258) Criteria for Municipal Solid Waste Landfills, e.g., location restrictions for airport safety; research, development, and demonstration permits; leachate recirculation; and, updates to the appendix. In addition, the new section will include revisions to reflect changes in an amendment of the S.C. Code Ann. Section 44-96-10 *et seq.*, Solid Waste Policy and Management Act, in 2000. These changes include deletion of a requirement for disposal of municipal solid waste incinerator ash in a monofill, and the addition of administratively complete language relating to the Department's review of permit applications.

Representatives from S.C. industries including the solid waste disposal industry, environmental consultants, Chamber of Commerce Technical Committee, Carolinas Association of General Contractors, S.C. Pulp & Paper Association, S.C. Manufacturers Alliance, Association of Counties, and S.C. utilities worked with Department staff to define the scope of this proposed regulation section and to develop reasonable criteria while maintaining protection of the environment and public health. See the Statement of Need and Reasonableness above for more information regarding the factors influencing the decision to revise the regulation.

Resubmitted: April 16, 2008

Document No. 3151  
**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
 CHAPTER 61  
 Statutory Authority: 1976 Code Sections 44-44-10 through 44-44-160

61-114. South Carolina Birth Defects Program

**Synopsis:**

New Regulation 61-114 was promulgated to implement provisions of the South Carolina Birth Defects Act (2004 S.C. Act No. 281) codified at S.C. Code Ann. Sections 44-44-10 through 44-44-160, regarding the public health surveillance of birth defects identified in children up to two years of age in South Carolina. This legislative mandate authorizes the Department to promulgate regulations for public health surveillance of birth defects and to ensure compliance with the public health monitoring of every child born in South Carolina. Specific areas which the Department seeks to address in the regulations include: definitions of key terms; establishment of the South Carolina Birth Defects Program; purpose of the program and type of case ascertainment utilized; utilization of data; methods of referral and intervention; establishment and composition of the South Carolina Birth Defects Advisory Council; maintenance of central database; access to health and medical records; confidentiality; public reports of de-identified, aggregate data; use and disclosure of birth defects data; and agreements with other agencies.

**Discussion of Changes Made to the New Regulation as Requested by the  
 S. C. House of Representatives Medical, Military, Public and Municipal Affairs  
 Committee by Letter Dated April 15, 2008:**

SECTION CITATION/CHANGE

Section C.6.a:

Deleted the words "billing records" from the first sentence.

Section C.6.b:

Deleted the words "third party payers" and the word "billing"

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### Discussion of Proposed New Regulation as submitted to the General Assembly by the S.C. Department of Health and Environmental Control on January 8, 2008:

Section A discusses the purpose and scope of the proposed regulation.

Section B provides definitions related to implementation of the regulation.

Section C discusses statewide surveillance of all major structural birth defects.

Section D addresses utilization and release of program data.

Section E addresses use of birth defects data for linkage of affected children and families with treatment and services.

Section F addresses confidentiality requirements. Records will be kept confidential and used and released pursuant to the provisions of S.C. Code Ann. Section 44-44-140 only.

Section G addresses severability, whereas if any part of the regulation is found to be invalid, the remaining unaffected portions will remain in effect

**Instructions:** Add new R.61-114, South Carolina Birth Defects Program, to Chapter 61 regulations.

#### **Text:**

#### R.61-114 SOUTH CAROLINA BIRTH DEFECTS PROGRAM

Section A: Purpose and Scope

Section B: Definitions

Section C: Public Health Surveillance and Monitoring of Birth Defects

Section D: Data Usage

Section E: Referral

Section F: Confidentiality

Section G: Severability

Section A: Purpose and Scope

This regulation establishes standards for implementing provisions of Sections 44-44-10 through 44-44-160 of the South Carolina Code of Laws, 1976, as amended, regarding the public health monitoring of birth defects identified in children up to two years of age in South Carolina. The Birth Defects Act of 2004 established the South Carolina Birth Defects Program (SCBDP) within the Department of Health and Environmental Control. The Department has been given the legislative mandate to promulgate regulations for public health monitoring of birth defects and to ensure compliance with the public health monitoring of children born in South Carolina. The responsibilities of the various agencies, institutions and persons involved in public health surveillance and monitoring of birth defects are defined. Procedures for public health surveillance and monitoring, use of data, and maintenance of confidentiality are included.

Section B: Definitions

1. "Birth defect" is defined as a structural malformation, deformation, or disruption, present at birth, as determined before or after birth.
2. "Department" means the South Carolina Department of Health and Environmental Control.
3. "Child" is defined as a child up to two years of age.
4. "Identifying Information" is defined as the child's legal name, aliases, birth date, time of birth, place of birth, birth weight, race, ethnicity, parent's or legal guardian's complete name, complete address and

telephone number; mother's Social Security number and other information as deemed necessary by Department.

5. "ICD-9-CM diagnostic code categories" is the International Classification of Disease which assigns code numbers to each of the birth defects or any subsequent method of classification as may be adopted from time to time.

6. "Active surveillance system" is the process that is used to identify cases and collect data about children with birth defects. An active surveillance system utilizes case abstractors to conduct on-site visits to medical facilities to abstract information directly from medical records and other sources.

#### Section C: Public Health Surveillance and Monitoring of Birth Defects

1. The Department shall conduct statewide monitoring of all major structural birth defects using active surveillance methods to ascertain cases. This monitoring may be both prenatal and postnatal (up to two years of age) and shall include live births and fetal deaths occurring in South Carolina. South Carolina Birth Defects Program Nurse Abstractors will conduct active surveillance at all hospitals in South Carolina that provide obstetrical or pediatric care for case identification and abstraction. Hospitals and other medical facilities will provide, upon request, access to medical records containing ICD-9-CM diagnostic code categories in the range of birth defects codes recommended by the Centers for Disease Control (CDC) and the National Birth Defects Prevention Network (NBDPN) for surveillance. The categories of ICD-9-CM codes for birth defects includes, but is not limited to, the following:

- a. Central nervous system disorders
- b. Eye and ear disorders
- c. Cardiovascular disorders
- d. Orofacial disorders
- e. Gastrointestinal disorders
- f. Genitourinary disorders
- g. Musculoskeletal disorders
- h. Chromosomal disorders
- i. Other disorders to include Fetal Alcohol Syndrome and Amniotic bands
- j. ICD-9-CM codes regarding known or suspected fetal abnormality affecting management of mother.

2. The birth defects surveillance system will be implemented by phasing in additional birth defect categories until all CDC recommended types of birth defects are monitored.

3. Birth defects case abstraction information will include demographic data on the child, mother and father, if available.

4. The Department shall maintain a central database of all birth defects data gathered from hospitals, specialty clinics and other facilities, regarding births, pregnancies, stillbirths, and pediatric deaths through age two, throughout the state, including border regions.

5. The Department may enter into agreements with other states, health care facilities, and other entities in order to conduct monitoring of birth defects.

#### 6. Monitoring

a. Upon request, the Department shall have access to all records of parent(s), child, and siblings if necessary, for the purpose of identifying birth defects, including vital records, hospital medical records, physician office medical records, specialty clinic records, and discharge data, in order to identify birth

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defect cases. The Department shall verify the cases through records review and may include review by a physician geneticist.

b. For the purpose of surveillance and identification of birth defects, all laboratories, universities, and other sources of birth defects information shall provide the Department access to all health, medical, or other records, upon request.

c. Access to all records described herein may be granted in hard copy or electronically.

### Section D: Data Usage

1. Unless otherwise provided by law, all reports generated by the Department containing birth defects data will be publicly disclosed in aggregate form only. No identifying information will be publicly released by the Department.

2. Birth defect data may be used by the Department, its agents, partners and contractors, to facilitate optimal treatment services for affected children and families.

3. Any entity or person wishing to conduct research using this data must comply with the Department's procedures, including review by the Institutional Review Board (IRB).

4. The Department may negotiate and enter into agreements and contracts with state and federal agencies, other states, universities, genetic centers and other parties, as appropriate, in order to facilitate operation of the program. These agreements and contracts may include the release of identifying data to enable the other entity to offer families assistance for prevention of recurrence of birth defects.

### Section E: Referral

1. The Department may contact a family whose child is identified as having a structural birth defect either directly or through the child's health care provider in order to offer services. Family acceptance of referrals is voluntary. Referrals shall be made in accordance with the Department guidelines and recommendations.

2. South Carolina Birth Defects Program nurse abstractors will conduct surveillance activities, to include review of medical records for documentation of physician, social work or discharge planner referral for follow-up of children with birth defects. When there is no documented evidence of follow-up, South Carolina Birth Defects Program staff may access other appropriate health and developmental systems or organizations for referral for early intervention, such as Babynet. Babynet will provide regular feedback, as requested, to South Carolina Birth Defects Program on status of birth defects cases referred.

### Section F: Confidentiality

These records will be kept confidential and used and released pursuant to the provisions of S.C. Code Ann. Section 44-44-140 only.

### Section G: Severability

In the event that any portion of this regulation is construed by a court of competent jurisdiction to be invalid, or otherwise unenforceable, such determination shall in no manner affect the remaining portions of this regulation, and they shall remain in effect as if such invalid portions were not originally a part of these regulations.

**Fiscal Impact Statement:**

The South Carolina Birth Defects Program is state-funded. The funds to implement this program have been appropriated by the S.C. General Assembly.

**Statement of Need and Reasonableness:**

This statement was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11).

## DESCRIPTION OF REGULATION:

**Purpose:** This regulation will implement the provisions of the South Carolina Birth Defects Act (Act 281, 2004) codified at S.C. Code Ann. Sections 44-44-10 through-160 regarding the public health surveillance of birth defects identified in children up to two years of age in South Carolina. This regulation will ensure compliance with the public health monitoring of every child born in South Carolina.

**Legal Authority:** The S.C. Birth Defects Act (2004 S.C. Act No. 281) codified at S.C. Code Ann. Sections 44-44-10 through 44-44-160.

**Plan for Implementation:** The regulations will take effect upon approval by the S.C. Board of Health and Environmental Control, the General Assembly and publication in the State Register. The regulation will be implemented by providing the regulated community with copies of the regulation.

## DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The proposed regulation is needed and reasonable because it will satisfy a legislative mandate to implement the provisions of the S.C. Birth Defects Act. This regulation will allow South Carolina to establish and maintain a comprehensive program to monitor the occurrence of all major structural birth defects in the state for the purpose of determining rates and trends of birth defects; assessing the efficiency and effectiveness of referral of affected children and families; developing public health strategies for the prevention of birth defects and conducting research on the causes, distribution and prevention of birth defects. This program offers benefits of improved child services, occurrence and recurrence prevention, epidemic or cluster analysis, education, research, optimal resource allocation, and net savings which will likely far exceed the cost to the State.

## DETERMINATION OF COSTS AND BENEFITS:

This is a state funded program. See Preliminary Fiscal Impact Statement above.

Costs are expected to be minimal, if any, to the regulated community. Department staff will utilize its own assets to retrieve the needed data and resources from hospitals and other medical facilities.

## UNCERTAINTIES OF ESTIMATES:

None

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### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

There will be no effect on the environment. The regulation will promote public health by improving knowledge and information regarding the occurrence of birth defects, including rates and trends, in South Carolina. This will enable research on the causes, distribution and prevention of birth defects and development of public health strategies for prevention. Additionally, referral of children and families for appropriate services and care will be enhanced.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

If the regulation is not implemented, the Department and the State of South Carolina would lose the opportunity to gain critically needed information about birth defects in South Carolina and to improve the health and quality of life of its citizens. Potential opportunities to understand and reduce the economic burden of disability to the state would also be lost.

### Statement of Rationale:

The Department has promulgated this regulation to implement the provisions of the South Carolina Defects Act (2004 S.C. Act No. 281)

Document No. 3114

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL CHAPTER 61

Statutory Authority: 1976 Code Sections 13-7-10, 13-7-40 and 13-7-45 et seq.

61-106. Tanning Facilities

### Synopsis:

These amendments of R.61-106 are a result of House Bill 3833 that was enacted into law June 9, 2006, as Act 355, and codified at S.C. Code Ann. Section 13-7-45. The overall changes to the tanning regulation will substantially reduce the regulatory burden to the tanning industry. Additionally, language changes were made clarifying many sections of the regulations by making them more specific, better organized, and the intent of regulation more clear. The registration requirements and Civil Penalty schedule was redefined.

See Statement of Need and Reasonableness herein.

### Section-by-Section Discussion of Revisions:

### SECTION CITATION AND EXPLANATION OF CHANGE

#### 1) General Provisions.

61-106 Part 1 Section 1.1.1

Regulation requirements for installers / vendors has been removed as amended by the Act.

61-106 Part I Section 1.2

Two new definitions were added: Complaint and Investigation. Several Definitions were removed or modified to coincide with the over all intent of the revisions. Definitions removed are:

Formal Training

Override Timer Control



Tanning Components  
 Unlimited  
 Vendor

Definitions revised are:  
 Inspection  
 Sanitize

61-106 Part I Section 1.4  
 New wording added that stipulates when inspections are warranted.

61-106 Part I Section 1.7  
 The process of addressing violations is amended.

61-106 Part I Section 1.8  
 The Enforcement process was changed to Enforcement Actions, whereas the Department may impose a fine if the Department deems a situation could pose a potential public health hazard.

61-106 Part I Section 1.9 (new) No changes were made regarding fees. The application portion in the regulation was changed to expedite the registration process.

61-106 Part I Impounding & Records Section 1.9 & 1.10 (old) was removed.

61-106 Part I Section 1.11 New wording “initial registration approval” changed to “initial assignment of a registration number”. No initial approval will be required.

61-106 Part I Section 1.12. Monetary Fine chart added based upon the significance of the public health risk. Statement for the appeals process was added.

Part I Section 1.13 The Civil Penalties item by item was deleted in lieu of the Monetary Fines and / or Civil Penalties chart.

**(2) Registration of Tanning Facilities and Equipment.**

61-106 Part II Section 2.2 Tanning registrants will no longer be required to complete an extensive Application format. The Department will require tanning registrants to register their equipment.

61-106 Part II Section 2.3 The Department will no longer review the tanning facility Operating Procedures, Client Cards, or Alternate Exposure Schedule. The Department will no longer require tanning facilities to post the Departments Warning Posters.

61-106 Part II Section 2.4 (old) The Department will no longer “Approve” tanning facilities. The Department will require facilities to Register their tanning equipment. The Department will issue a registration number.

61-106 Part II Section 2.5 (New) New wording added for calcification of “Report of Change”.

61-106 Part II Section 2.6 (new) A change in wording was used to clarify new requirements.

61-106 Part II Sections 2.7, 2.8, & 2.9 These Sections were removed to fall in line with the intent of the amended regulations.

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### **(3) Standards For The Tanning Facility.**

61-106 Part III Section 3.1 New wording added to stipulate the Minimum Public Health Requirements for Tanning Facilities.

61-106 Part III Section 3.2 New wording for headings representing Ultraviolet Radiation Exposure. New Sections 3.2.1 & 3.2.2 indicates the facility responsibilities regarding exposure to ultraviolet radiation.

61-106 Part III Section 3.3 New heading changes. Department Warning Posters are no longer required. Section 3.3 now stipulates the basic Sanitation requirements.

61-106 Part III Section 3.4 Section 3.4.2 stipulates that all tanning equipment must be maintained so as not to cause injury or burn. All additional Sections under 3.4 have been deleted.

61-106 Part III Section 3.5 New heading changes. "Additional Requirements for Stand up Booths and any Cabinet or Vertical Tanning Devise" is no longer required. Section 3.5 now addresses Protective Eyewear requirements.

61-106 Part III Section 3.6 New heading change. Requirements for the Replacement of Ultraviolet Lamps, Bulbs or Filters. Protective Eyewear requirements listed under Section 3.5.

61-106 Part III Section 3.7 This Section was deleted. Sanitation requirements are now listed under Section 3.3.

### **(4) Deleted Parts that no longer apply.**

61-106 Part IV All Sections under Part IV Records, Reports and Instruction have been deleted.

61-106 Part V All Sections under Part VI Operator Requirements have been deleted.

61-106 Part VI All Sections under part VI Vendors have been deleted.

61-106 Appendix A Appendix A Skin Types have been deleted.

**Instructions:** Replace existing R.61-106, Tanning Facilities, in entirety with this amendment.

### **Text:**

## **61-106. TANNING FACILITIES**

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**PART I**

**GENERAL PROVISIONS**

**1.1 Purpose and Scope**

1.1.1 These regulations provide for the registration and regulation of facilities and equipment that employ ultraviolet and other lamps for the purpose of tanning the skin of the human body through the application of ultraviolet radiation.

1.1.2 Nothing in these regulations shall be interpreted as limiting the intentional exposure of patients to ultraviolet radiation for the purpose of medical treatment or therapy prescribed and supervised by a physician who is licensed by the South Carolina Board of Medical Examiners.

**1.2 Definitions:**

As used in this regulation:

1.2.1 “Act” means Atomic Energy and Radiation Control Act, Section 13-7-10 et seq, 1976 Code of Laws of South Carolina.

1.2.2 “Affected Party” means a tanning registrant whom an enforcement action has been taken by the Department.

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1.2.3 “Complaint” is a written document submitted to the Department addressing an existing or potential public health hazard.

1.2.4 “Consumer” means any individual who is provided access to a tanning facility that is required to be registered pursuant to provisions of this regulation.

1.2.5 “Department” means the South Carolina Department of Health and Environmental Control.

1.2.6 “Individual” means any human being.

1.2.7 “Inspection” means an official examination or observation, including, but not limited to, tests, surveys, and monitoring to determine compliance with rules, regulations, orders, or to investigate complaints or injuries.

1.2.8 “Investigation” means a visit by an authorized individual(s) to a registered or unregistered facility for the purpose of determining the validity of complaints or allegations received by the Department relating to this regulation.

1.2.9 “Minor” means any individual less than eighteen (18) years of age.

1.2.10 “Operator” means any individual designated by the registrant to operate or to assist and instruct the consumer in the operation and use of the tanning facility or tanning equipment. Under this definition, the term “operator” means any individual who conducts one or more of the following activities:

- 1) determining consumers’ skin type;
- 2) determining the suitability for use of a tanning device by prospective consumers;
- 3) informing the consumer of the dangers of ultraviolet radiation exposure including photoallergic reactions and photosensitizing reactions;
- 4) determining consumer use of potentially photosensitizing agents;
- 5) assuring the consumer reads and properly signs all forms required by these regulations;
- 6) reviewing, signing, and ensuring required documentation is completed for minors or illiterate or visually impaired consumers;
- 7) maintaining required consumer exposure records;
- 8) recognizing and reporting consumer actual or alleged ultraviolet radiation injuries to the registrant;
- 9) instructing the consumer in the proper use of protective eyewear; and
- 10) setting timers which control the duration of exposure.

1.2.11 “Person” means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, any other state or political subdivision or agency thereof, and any legal successor, representative, agent or agency of these entities.

1.2.12 “Personal Use” means tanning equipment that is used solely by an individual and the individual’s immediate family or permanent residents of the individual’s place of residence. Immediate family is defined as the spouse, great-grandparents, grandparents, parents, brothers, sisters, children, grandchildren, great-grandchildren of either the owner of the tanning equipment or the spouse.

1.2.13 “Registrant” means any person who is registered with the Department as required by provisions of this regulation.

1.2.14 “Registration” means registering with the Department in accordance with provisions of this regulation.

1.2.15 “Sanitize” means the effective fungal, viral and bacterial treatment of surfaces of tanning equipment by an EPA- approved product that provides a sufficient concentration of chemicals and enough time to reduce the bacterial count, including pathogens, to an acceptable level.

1.2.16 “Tanning Equipment” means ultraviolet or other lamps and equipment containing such lamps intended to induce skin tanning through the irradiation of any part of the living human body with ultraviolet radiation.

1.2.17 “Tanning Facility” means any location, place, area, structure or business that provides consumers access to tanning equipment. For the purpose of this definition tanning equipment registered to different persons at the same location and tanning equipment registered to the same person, but at separate locations, shall constitute separate tanning facilities.

1.2.18 “Ultraviolet Radiation” means electromagnetic radiation with wavelengths in air between two hundred nanometers and four hundred nanometers.

### **1.3 Compliance with Other Laws:**

The registrant shall comply with any other applicable federal, state and local regulations dealing with health, sanitation, safety standards and electrical standards.

### **1.4 Inspections:**

All facilities are subject to inspection or investigation at any time, without prior notice, by individuals authorized by the Department. The inspection or investigation may be performed as a result of an injury, complaint, non payment of fees, or as the Department deems necessary.

### **1.5 Exemptions:**

1.5.1 The Department may, upon application therefore or upon its own initiative, grant such exemptions or exceptions from the requirements of this regulation as it determines are authorized by law and will not result in undue hazard to public health and safety.

1.5.2 Any person is exempt from the provisions of this regulation to the extent that such person uses equipment other than tanning equipment that emits ultraviolet radiation incidental to its normal operation.

1.5.3 Any individual is exempt from the provisions of this regulation to the extent that such individual owns tanning equipment exclusively for personal use.

1.5.4 Tanning equipment, while in transit or storage incidental thereto, is exempt from the provisions of this regulation.

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### **1.6 Additional Requirements:**

The Department may, by order, impose upon any registrant such requirements in addition to those established in this regulation as it deems appropriate or necessary to minimize danger to public health and safety or property.

### **1.7 Violations:**

The Department is authorized to assess monetary fines and or civil penalties for violations of the provisions of the Act or any regulation, temporary or permanent order, or final determination of the Department.

### **1.8 Enforcement Actions:**

The Department may, upon proper notice to the registrant, impose a fine for failing to comply with these regulations or provisions of the Act, or when the Department deems a situation to constitute an existing or potential public health hazard.

### **1.9 Fees:**

#### 1.9.1 Application Fee:

1.9.1.1 Each registrant shall pay a nonrefundable initial application fee of fifty dollars upon submission of the "Application for Registration of Tanning Facilities" form.

#### 1.9.2 Tanning Equipment Fee:

1.9.2.1 Each registrant shall pay fifty dollars for each piece of tanning equipment.

1.9.2.2 The tanning equipment fee shall be due upon initial assignment of a registration number and on July 15 of each year.

1.9.2.3 Payment of fees shall be made in accordance with the instructions of a "Statement of Fees Due" issued annually or monthly by the Department.

1.9.2.4 Fees required by Section 1.9 for tanning equipment that is issued during a calendar year shall be prorated for the remainder of that year based on the date of issuance of the registration.

1.9.2.5 Persons failing to pay the fees required by Section 1.9 within sixty days from the billing date shall also pay a penalty of fifty dollars. If the required fees are not paid within ninety days of the billing date, the registrant shall be notified that his / her registration is revoked, and that any activities permitted under the authority of the registration must cease immediately or monetary fines and/or civil penalties will be levied.

### **1.10 Material False Statement:**

It shall be a violation of these regulations to make a material false statement to the Department regarding information contained in the application for registration, information pertaining to an inspection or any other information required by any provision of these regulations.

**1.11 Communications:**

All communications and reports concerning these regulations, and registrations filed thereunder, shall be addressed to the Department at:

SC Department of Health and Environmental Control  
 Bureau of Radiological Health  
 2600 Bull Street  
 Columbia, SC 29201

**1.12 Violations:**

1.12.1 Assessment of monetary fines and or civil penalties will be based upon the severity of the public health risk:

Monetary and/or Civil Penalty Actions:	1 <sup>st</sup> Offense	2 <sup>nd</sup> Offense	3 <sup>rd</sup> Offense
Failure to register and/or pay any fee.	\$500.00	\$1,000.00	\$5,000.00
Ultraviolet radiation burn requiring medical attention and/or equipment-related injuries.	\$1,000.00	\$2,000.00	\$4,000.00
Unsanitary conditions of tanning or tanning- related equipment that could result in the transmission of communicable diseases.	\$1,000.00	\$2,000.00	\$4,000.00
Failure to provide and/or ensure use of Food and Drug Administration (FDA) approved equipment and eyewear.	\$500.00	\$1,000.00	\$1,500.00
Use of medical lamps and/or noncompliant lamps or filters.	\$1,000.00	\$2,000.00	\$3,000.00
Failure to operate a facility in a manner so as not to cause a potential overexposure to nonionizing radiation or potential transmission of a communicable disease or injury.	\$500.00	\$1,000.00	\$5,000.00

1.12.2 Any person to whom an order is issued may appeal it pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23.

**1.13 Severability:**

If any provision of this regulation or its application to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of the regulation that can be given effect without the invalid provision or application, and to this end the provisions of the regulation are severable.

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### **PART II**

#### **REGISTRATION OF TANNING FACILITIES AND EQUIPMENT**

##### **2.1 Purpose and Scope:**

This Part describes the requirements of facilities and equipment that use ultraviolet and other lamps for the purpose of tanning the skin of the human body through the application of ultraviolet radiation.

##### **2.2 Application for Registration of Tanning Facilities:**

2.2.1 Each person acquiring or establishing a tanning facility shall register the tanning equipment prior to beginning operation of such a facility.

2.2.2 The registrant shall submit DHEC form 0826, Registration of Tanning Equipment, to SC DHEC, Bureau of Radiological Health, 2600 Bull Street, Columbia, SC 29201. Upon completion and receipt of DHEC form 0826, Registration of Tanning Equipment, the Department will issue a tanning facility registration number.

##### **2.3 Issuance of Registration Document:**

2.3.1 No person shall operate a tanning facility until the Department has issued a registration number or otherwise received notification from the Department.

2.3.2 Any facility found operating unregistered shall be subject to a Monetary Fine as described in Section 1.12.1, and/or Civil Penalties.

##### **2.4 Transfer of Registration:**

No registration shall be transferred from one person to another or from one tanning facility to another tanning facility.

##### **2.5 Report of Change:**

The registrant shall report to the Department, within thirty days, any changes of status affecting the tanning equipment or facility. Report of change of status shall be made in writing and forwarded to the Department.

##### **2.6 Denial, Suspension or Revocation of Registration:**

2.6.1 The Department may deny suspend, or revoke a registration:

1. for any material false statement on DHEC Form 0826 Registration of Tanning Equipment; in the application for registration or in the statement of fact required by provisions of this regulation;

2. for falsification or alteration of records required to be kept by this regulation;

3. for operation of the tanning facility in a manner that causes or threatens to cause hazard to the public health or safety;

4. for failure to allow authorized representatives of the Department to enter the tanning facility at reasonable times for the purpose of determining compliance with the provisions of this regulation, or an order of the Department;



5. for failure to pay any fees;

6. for failure to correct violations;

7. for violation of, or failure to observe any of the terms and conditions of this regulation, or an order of the Department;

8. when the current owner of the tanning facility has one or more of the following at another salon: outstanding compliance issues, a poor compliance history, outstanding fees or penalties due, or unresolved enforcement action.

2.6.2 A Department decision involving the issuance, denial, suspension, or revocation of a registration may be appealed by an affected person pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23.

2.6.3 The Department may terminate a registration upon receipt of a written request for termination from the registrant.

### **PART III**

#### **STANDARDS FOR THE TANNING FACILITY**

##### **3.1 Purpose and Scope:**

This Part provides for the minimum public health requirements for tanning facilities that employ ultraviolet equipment for the purpose of tanning the skin of the human body through the application of ultraviolet radiation.

##### **3.2 Ultraviolet Radiation Exposure:**

3.2.1 Each registrant shall ensure that all individuals exposed to ultraviolet radiation will not be subjected to an overexposure of nonionizing radiation that results in a significant burning of the skin requiring medical attention.

3.2.2 A facility must be operated in a manner to prevent a potential overexposure to nonionizing radiation or potential transmission of a communicable disease or injury.

##### **3.3 Sanitation:**

3.3.1 The registrant shall ensure that the tanning equipment and protective eyewear required by this regulation are properly sanitized before each use. The sanitizer used shall be one intended and documented for use on the tanning equipment and protective eyewear. The sanitizer shall be mixed and used according to the manufacturer's instructions.

3.3.2 All surfaces of the tanning equipment must be maintained in a condition that does not compromise the effectiveness of sanitation.

3.3.3 A registrant shall not require a consumer to sanitize the tanning equipment or protective eyewear and shall not post any signs requesting such sanitation be performed by the consumer. However, this does not prevent a consumer from re-sanitizing the tanning equipment or protective eyewear if a consumer so chooses after the registrant has performed the sanitation.

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### **3.4 Tanning Equipment:**

3.4.1 The registrant shall use only tanning equipment manufactured in accordance with the specifications set forth in 21 CFR 1040.20, "Sunlamp products and ultraviolet lamps intended for use in sunlamp products." The nature of compliance shall be based on the standards in effect at the time of manufacture as shown on the device identification label required by 21 CFR 1010.3.

3.4.2 All tanning equipment must be maintained to prevent injury or burn.

### **3.5 Protective Eyewear:**

3.5.1 If a consumer does not provide protective eyewear, the registrant shall have compliant protective eyewear available for each consumer to use during any use of tanning equipment.

3.5.2 If a consumer fails to provide compliant protective eyewear and chooses not to use the protective eyewear available from the registrant, then the consumer shall not be allowed to tan.

3.5.3 Prior to initial exposure, the tanning facility operator shall instruct the consumer in the proper utilization of the protective eyewear required by this regulation, to include use in accordance with the manufacturer's design, instructions and approval.

3.5.4 Tanning facility operators shall ensure all protective eyewear is in optimal condition.

3.5.5 Tanning facility operators shall ensure the protective eyewear used by the consumer is used in accordance with its design.

3.5.6 The protective eyewear in this regulation shall meet the requirements of 21 CFR 1040.20 (c) (4) (4-1-87 edition).

### **3.6 Replacement of Ultraviolet Lamps, Bulbs or Filters:**

3.6.1 The registrant shall only use lamps that have been certified with the Food and Drug Administration (FDA) as "equivalent" lamps under the FDA regulations and policies applicable at the time of the replacement of the lamps. The format for the equivalency document shall be in compliance with 21 CFR 1040.20 and shall be in the form of User Instructions.

3.6.2 The registrant shall maintain manufacturer's literature demonstrating the equivalency of any replacement lamps that are not identified as original equipment. The documents for any lamps currently in use shall be kept at the facility and shall be readily available for Department review.

3.6.3 Defective lamps or filters shall be replaced before further use of the tanning equipment.

3.6.4 Lamps and bulbs designated for "medical use only" shall not be used.

### **3.7 Use of Tanning Equipment by Minors:**

3.7.1 The registrant shall not allow minors to use tanning equipment unless the minor provides a consent form signed by the minor's parent or legal guardian while witnessed by an operator or the owner of the tanning facility. The witness shall provide his/her name, signature, title and date on the consent form.

**3.8 Warning Sign:**

3.8.1 The following warning sign shall be conspicuously posted in the immediate proximity of each piece of tanning equipment. It shall be legible, and clearly visible, unobstructed by any barrier, equipment, or other item so that the consumer can easily view the warning sign before energizing this tanning equipment:

**If you receive any injury from the use of this tanning device, such as a burn or other physical injury, report this injury immediately to a tanning equipment operator and to the SC Department of Health and Environmental Control, Bureau of Radiological Health, 2600 Bull Street, Columbia, SC 29201, or contact the Department by telephone at (803) 545-4400.**

**PART IV****OPERATOR TRAINING****4.1 Purpose and Scope:**

This Part provides the minimum training requirements for tanning equipment operators who employ ultraviolet and other lamps for the purpose of tanning the skin of the human body through the application of ultraviolet radiation.

**4.2 Minimum Operator Training Requirements:**

4.2.1 The operator shall ensure the tanning equipment is not operated in a manner to cause overexposure or injury to the consumer. Tanning equipment operators shall be trained at a minimum in the following areas:

1. the required subjects shall include, but not be limited to:
2. the requirements of these regulations, R.61-106 "Tanning Facilities;"
3. the proper procedures for the use and instruction in the use of protective eyewear;
4. recognition of injury or overexposure to ultraviolet radiation;
5. examples and detailed explanations of tanning equipment manufacturers recommended exposure schedules;
6. the Potential photosensitizing agents, to include food, cosmetics and medications, and the possibility of photosensitivity and photoallergic reactions;
7. the Emergency procedures to be followed in case of an actual or alleged ultraviolet radiation injury;
8. biological effects of ultraviolet radiation, to include the potential acute and long term health effects of ultraviolet radiation;
9. the human skin and the tanning process;

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10. the public health reasons for avoiding overexposure and the dangers of overexposure;
11. operator training must be documented and available to the Department for review;

### **Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

### **Statement of Need and Reasonableness:**

This statement of need and reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION: R.61-106 Tanning Facilities.

Purpose: The amendment of R.61-106 is a result of House Bill 3833. This Bill was enacted into law on June 9, 2006 as Act 355, and codified at S.C Code Ann. Section 13-7-45. See Synopsis above.

Legal Authority: The legal authority for the Regulation 61-106 is S.C. Code Ann. Sections 13-7-40, 13-7-45, and 13-7-45 et seq. and Supplement

Plan for Implementation: This amendment will take effect upon approval by the Board of Health and Environmental Control, the General Assembly, and publication as a final regulation in the S.C. State Register. These amendments will be implemented by providing the regulated community with copies of the regulation.

### **DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:**

The overall changes to the regulations will substantially reduce the regulatory burden to the tanning industry.

The language changes in the regulations will clarify many Sections and Parts of the regulations.

Redefining the overall purpose of the regulations, registration requirements, and Civil Penalty schedule will clearly identify the intent of the regulations.

### **DETERMINATION OF COSTS AND BENEFITS:**

There is no registration fee increase proposed for the changes in the regulations.

See Fiscal Impact Statement above for costs to the State and its political subdivisions.

### **UNCERTAINTIES OF ESTIMATES:**

There are no known uncertainties of estimates.

### **EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:**

These revisions will clarify the intent of the overall regulations. In the event of a significant public health risk, the Department will have the authority to intervene.

DETRIMENTAL EFFECTS ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATIONS ARE NOT IMPLEMENTED:

The proposed regulations are based on a statutory mandate pursuant to House Bill 3833, enacted into law on June 9, 2006, as Act 355, and S.C. Code Ann. Section 13-7-45.

**Statement of Rationale:**

The Department has amended R.61-106 as required by State law pursuant to Act 355 (June 9, 2006), which changed S.C. Code Ann. Section 13-7-45. The most significant changes redefine the registration requirements and Civil Penalty schedule. Language changes were made to clarify many sections of the regulations by making them more specific, better organized, and the intent of regulation more clear.

Document No. 3152  
**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
 CHAPTER 61  
 Statutory Authority: 1976 Code Section 44-2-50

61-92. Underground Storage Tank Control Regulations

**Synopsis:**

This amendment implements the provisions of the UST Compliance Act of the Federal Energy Policy Act of 2005 (U.S. Public Law 109-58). The amendment (1) establishes a requirement for new or replacement underground storage tanks, piping and dispensers to be secondarily contained, (2) establishes the process whereby the Department imposes delivery prohibition on an out of compliance tank or tanks, and (3) establishes the requirement for the Department to develop an Operator Training Plan and for owners/operators to have trained operators. The amendment also (4) makes stylistic changes requested by the U.S. Environmental Protection Agency (USEPA) so that codification of the State’s UST Control Regulations can be finalized and (5) incorporates changes to correlate with changes in the administrative appeals process pursuant to S.C. ACT 387 (2006).

Discussion of Revisions:

**(1) Establish a requirement for new or replacement underground storage tanks, piping and dispensers to be secondarily contained.**

Section Citation and Explanation of Change:

280.12 Definitions

New text added to define “Community Water Systems”.

280.12 Definitions

New text added to define “Interstitial Space”.

280.12 Definitions

New text added to define “Potable Drinking Water Well”.

280.12 Definitions

New text added to define “Replace”.

280.12 Definitions

New text added to define “Under-Dispenser Containment (UDC)”.

280.20(g)

New text added as item g to describe secondary containment requirement and application.

280.33(c)

New text added to clarify secondary containment requirement during piping repair/replacement.

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### **(2) Establish the process whereby the Department imposes delivery prohibition on an out of compliance tank or tanks.**

#### Section Citation and Explanation of Change:

280.23(e)-(l)

New text added as items e through l to clarify delivery prohibition criteria and procedures.

### **(3) Establish the requirement for the Department to develop an Operator Training Plan and for owners/operators to have trained operators.**

#### Section Citation and Explanation of Change:

Table of Contents

280.35 added under Subpart C.

280.34(b)(6)

New text added as item (6) to introduce operator training documentation requirements.

280.35

New text added as item 280.35 to establish operator training requirement and to task Department with development of Operator Training Plan.

### **(4) Make stylistic changes requested by the U.S. Environmental Protection Agency (USEPA) so that codification of the State's UST Control Regulations can be finalized.**

#### Section Citation and Explanation of Change:

280.12 Definitions

Made "Noncommercial purposes" and "On the premises where stored" two separate entries for clarity.

280.12 Definitions

Number the item "The term 'regulated substances...' (c) for codification and change "though" to "through".

280.20(b)(1)(D)

Changed "2" to "s".

280.20(b)(3)(ii)

Changed (B) to (b).

[Note]

Changed (B) to (b).

280.20(e)

Changed (d) to (e).

280.20(f)

Changed (d) to (e).

280.20(f)(6)

Changed (d) to (e).

280.20(h)

The item previously numbered as (g) is being renumbered as (h). The text did not change.

280.20(i)

The item previously numbered as (h) is being renumbered as (i). The text did not change.

280.22(a)

Changed "an existing" to "a". New text added to clarify which form notification is to be made on.

280.22(b)

New text added to clarify which form notification is to be made on.

280.22(d)

Remove "existing". New text added to indicate the time frame for notification.

280.22(i)

The existing text of (i) revised to clarify the Department's authority and delete reference to appeals.

280.23(b)(2)

Change (d) to (e).

280.23(d)

Existing text of (d) revised to delete reference to appeals.

280.23(m)

The item previously numbered as (e) is being renumbered as (m). The text did not change.

280.34(a)(1)

Change (e) to (f).

280.40(c)

Chart redrawn for clarity.

RD

Corrected reference 280.419(a) to 280.41(a).

280.43(b)(4)

Chart redrawn for clarity.

280.71(a)

Correct spelling of “least”; new text added to clarify time frame for notification requirement.

280.104(d)

Correct spelling “Poor’s”.

**(5) Changes to correlate with changes in the administrative appeals process pursuant to S.C. ACT 387 (2006).**

Section Citation and Explanation of Change

280.302 (a)-(b)

Text revised to incorporate latest appeal procedures.

**Instructions:**

Amend R.61-92 pursuant to each individual instruction provided with the text below:

**Text:**

**Revise R.61-92 Table of Contents at SUBPART C. General Operating Requirements, to add 280.35 Operator training required; all other sections of the Table remain the same:**

SUBPART C. General Operating Requirements  
Sec.

280.30. Spill and overfill control.

280.31. Operation and maintenance of corrosion protection.

280.32. Compatibility.

280.33. Repairs allowed.

280.34. Reporting and recordkeeping.

280.35. Operator training required.

**At 61-92.280.12, Definitions, add the following definitions in alphabetical order to read:**

“Community Water System (CWS)” means a public water system that serves at least 15 service connections used by year-round residents of the area served by the system; or regularly serves at least 25 year-round residents. The following are included as part of the community water system:

(a) The wellhead for groundwater and/or intake point(s) for surface water;

(b) Collection, treatment, storage, and distribution facilities that are part of the community water system; and

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(c) The piping distribution system that delivers the water to the community.

“Interstitial space” means the opening formed between the inner and outer wall of a UST system with double-walled construction or the opening formed between the inner wall of a containment sump and the UST system component that it contains.

“Potable Drinking Water Well” means any hole (dug, driven, drilled, or bored) that extends into the earth until it meets groundwater which:

(a) Supplies water for a non-community public water system; or

(b) Otherwise supplies water for household use (consisting of drinking, bathing, and cooking, or other similar uses).

(c) Such wells may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities.

“Replace” means to remove a UST system or UST system component and to install another UST system or UST system component in its place.

“Under-Dispenser Containment (UDC)” means a component underneath a dispenser that will prevent leaks from the dispenser from reaching soil or groundwater. Such containment must:

(a) Be liquid-tight on its sides, bottom, and at any penetrations;

(b) Be compatible with the substance conveyed by the piping; and

(c) Allow for visual inspection and access to the components in the containment system and/or be monitored.

**Revise 61-92.280.12, Definition of “Noncommercial purposes” and “On the premises where stored” by splitting into two separate definitions to read:**

"Noncommercial purposes" with respect to motor fuel means not for resale.

"On the premises where stored" with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

**Revise 61-92.280.12, Definition of “Regulated substance”, to add outline codification and to correct misspelled word “though” to “through, to read:**

"Regulated substance" means:

(a) Any substance defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C); and

(b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

(c) The term "regulated substance" includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of



separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuels oils, lubricants, petroleum solvents, and used oils.

**Revise 61-92.280.20(b)(1)(D) to read:**

(D) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, "Flexible Underground Hose Connectors."]

**Revise 61-92.280.20(b)(3)(ii) to read:**

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

**Revise 61-92.280.20(b)(3)(ii) [Note] to read:**

[Note: National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code"; and National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems," may be used to comply with paragraph (b)(3) of this section.]

**Revise 61-92.280.20(e) to read:**

(e) Installation. All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

[Note: Tank and piping system installation practices and procedures described in the following codes may be used to comply with the requirements of paragraph (e) of this section:

(i) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System"; or

(ii) Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems"; or

(iii) American National Standards Institute Standard B31.3, "Petroleum Refinery Piping," and American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System."]

**Revise 61-92.280.20(f), sub items (1) – (5) remain the same, to read:**

(f) Certification of installation. All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (e) of this section by providing a certification of compliance to the Department on the Permit to Operate application form.

**Revise 61-92.280.20(f)(6) to read:**

(6) The owner and operator have complied with another method for ensuring compliance with paragraph (e) of this section that is determined by the Department to be no less protective of human health and the environment.

**Add Section 61-92.280.20(g) to read:**

(g) Effective with the enactment of this regulation, each new or replacement underground storage tank, or piping connected to any such new tank, that is within 1,000 feet of any existing community water system or

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any existing potable drinking water well must be secondarily contained and monitored for leaks. In the case of a replacement of a previously installed underground storage tank or previously installed piping connected to the underground storage tank, the secondary containment and monitoring shall apply only to the specific underground storage tank or piping being replaced, not to other underground storage tanks and connected pipes comprising such system. In addition, each new or replacement motor fuel dispenser system installed within 1,000 feet of any existing community water system or any existing potable drinking water well must have under-dispenser containment. New piping associated with this installation must be secondarily contained. These requirements do not apply to repairs meant to restore an underground storage tank, pipe, or dispenser to operating condition except that when piping repairs over a consecutive 12 month period constitute more than 25 percent of the piping by length, the entire piping run must be replaced with secondarily contained piping. In the case of dispenser replacement on suction piping systems that meet the requirements of Section 280.41(b)(2)(i – v), this requirement does not apply if the replacement does not involve any connectors, risers, or piping below the union or check valve. Secondary containment systems shall be designed, constructed, installed and maintained to:

(1) Contain regulated substances released from a UST system until they are detected and removed; and

(2) Prevent a release of regulated substances to the environment at any time during the operational life of the UST system; and

(3) Be monitored monthly for a release in accordance with Section 280.43 (g). The requirements of this section also apply to new or replacement underground storage tank systems that serve emergency generators.

### **Revise existing 61-92-280.20(g) and (h) and renumber them (h) and (i) to read:**

(h) Secondary containment required. All new tank systems which are installed within 100 feet of an existing water supply well, a coastal zone critical area, or state navigable waters, must install an approved method of secondary containment.

(i) Release detection. Release detection, conducted in accordance with Subpart D, must begin when regulated substances are introduced into the tank system.

### **Revise 61-92.280.22(a) to read:**

(a) By January 1, 1986 any owner of a tank storing or having stored regulated substances on or before January 1, 1986 shall notify the Department of the existence of such a tank specifying the type, location, storage capacity, age, and uses of such a tank (i.e., operational status at the time of notification) and of any known past failure(s) and corrective action taken as a result of the failure. The notification shall be made using EPA Form 7530-1 or Department Form DHEC-1917.

### **Revise 61-92.280.22(b) to read:**

(b) For each underground storage tank taken out of operation after January 1, 1974, the owner of such tank shall, within 12 months after the date of enactment of these regulations (R.61-92), notify the Department of the existence of such tanks (unless the owner knows the tank subsequently was removed from the ground). The notification shall be made using EPA Form 7530-1 or Department Form DHEC-3856. The owner of a tank taken out of operation on or before January 1, 1974, shall not be required to notify the Department under this subsection.

**Revise 61-92.280.22(d) to read:**

(d) Any owner which brings into operation an underground storage tank after the initial notification period specified under paragraph (a), shall notify the Department within 30 days using the procedures specified in paragraph (a) of this section.

**Revise 61-92.280.22(i) to read:**

(i) The Department may issue, deny, revoke, suspend or modify the registration under such conditions as it may prescribe herein for the operation of any tank.

**Revise 61-92.280.23(b)(2) to read:**

(2) All owners and operators of new UST systems must ensure that the installer certifies in the permit to operate application form that the methods used to install the tanks and piping complies with the requirements in Section 280.20(e).

**Revise 61-92.280.23(d) to read:**

(d) The Department may issue, deny, revoke, suspend or modify permits under such conditions as it may prescribe for the operation of any tank.

**Add Section 61-92.280.23(e) through (l) to read:**

(e) The Department may classify as ineligible for delivery, deposit, or acceptance of product an underground storage tank where the Department has determined:

- (1) Required spill prevention equipment is not installed; or
- (2) Required overfill protection equipment is not installed; or
- (3) Required leak detection equipment is not installed; or
- (4) Required corrosion protection equipment is not installed; or
- (5) Other conditions the Department deems appropriate.

(f) When the Department determines that an underground storage tank or tanks should be classified as ineligible for delivery, deposit or acceptance of product under paragraph (e) of this section, the Department shall notify the owner/operator of the Department's intent to declare the tank(s) ineligible for delivery, deposit, or acceptance of product if the deficiency is not corrected within seven (7) calendar days.

(g) The Department may classify as ineligible for delivery, deposit, or acceptance of product an underground storage tank if the owner/operator of that tank has been issued a written warning or citation (notice of violation) under any of the following circumstances and the owner/operator has failed to take corrective action within 30 days:

- (1) Failure to properly operate and/or maintain leak detection equipment; or
  - (2) Failure to properly operate and/or maintain spill, overfill, or corrosion protection equipment;
- or
- (3) Failure to maintain financial responsibility; or

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(4) Failure to protect a buried metal flexible connector from corrosion.

(h) When the Department determines that an underground storage tank or tanks should be classified as ineligible for delivery, deposit or acceptance of product under paragraph (g) of this section, the Department shall notify the owner/operator of the Department's intent to declare the tank(s) ineligible for delivery, deposit, or acceptance of product if the deficiency is not corrected within seven (7) calendar days

(i) When the out of compliance condition has not been corrected after the seven (7) calendar days established under paragraph (f) or (h) of this section, the Department will declare the tank ineligible for delivery, deposit, or acceptance of product and notify the owner/operator and supplier of the delivery prohibition.

(1) The notification of owner/operator and supplier of a delivery prohibition will be by at least two means of communication (for example: telephone, e-mail, facsimile, or messenger); and

(2) The Department will post the delivery prohibition notice on the Department's Tank Registry website; and

(3) The Department will affix a delivery prohibition notice to the fill port of the affected tank.

(j) It shall be illegal for any person to deliver, deposit, or accept product into a tank where the Department has imposed delivery prohibition and has notified the owner/operator and supplier of the delivery prohibition.

(k) When the owner/operator notifies the Department that the deficiency has been corrected and the Department has verified that the tank(s) is in compliance:

(1) The delivery prohibition will be lifted and the delivery prohibition notice will be removed from the tank fill port within two (2) working days (Monday – Friday) of the notification; and

(2) The Department will notify the owner/operator and the supplier that delivery to the tank may resume; and

(3) The delivery prohibition website posting will be cleared.

(l) The Department retains the discretion to decide whether to identify an underground storage tank as ineligible for delivery, deposit, or acceptance of product based on whether the prohibition is in the best interest of the public. In some cases, prohibition of delivery, deposit, or acceptance of product to an underground storage tank is not in the best interest of the public, even in the case of significant and/or sustained noncompliance (e.g., certain emergency generator underground storage tanks). In other cases, the Department may choose to classify an underground storage tank as ineligible to receive product but then authorize delivery in emergency situations (for example natural disasters).

NOTE: Delivery Prohibition does not relieve the owner/operator from administrative enforcement actions due to the out of compliance condition(s).

### **Revise existing 61-92.280.23(e) by renumbering (e) to 61-92.280.23(m) to read:**

(m) Any person who plans to install a system of two or more tanks at the same location, may apply for one permit for that system of tanks.

**Revise 61-92.280.33(c) to read:**

(c) Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be replaced. Fiberglass pipes and fittings may be repaired in accordance with the manufacturer's specifications. Should the piping replacement or repair within a consecutive 12 month period constitute more than 25 percent of the piping by length, the entire piping run must be replaced with secondarily contained piping.

**Revise 61-92.280.34(a)(1) to read:**

(1) Notification for all UST systems (Section 280.22), which includes certification of installation for new UST systems (Section 280.20(f));

**Add Section 61-92.280.34(b)(6) to read:**

(6) Documentation of UST facility operator designation and training (Section 280.35).

**Add Section 61-92.280.35 to read:**

**SECTION 280.35. OPERATOR TRAINING REQUIRED.**

(a) Not later than August 8, 2009, the Department shall develop an Operator Training Plan.

(b) The training plan shall:

- (1) Be developed in cooperation with tank owners and operators; and
- (2) Take into consideration training programs implemented by tank owners and tank operators; and
- (3) Be communicated to tank owners and operators; and
- (4) Provide options for obtaining training; and
- (5) Describe minimum curriculum standards and evaluation requirements for operator training.

(c) Not later than two years from the publication date of the Department's Operator Training Plan, operator training is required for all operators of underground storage tank systems that meet the definition of "UST system" in Section 280.12, except for those underground storage tank systems identified in Section 280.10(b) and 280.10(c) as excluded or deferred underground storage tank systems. Three categories of operators must be trained:

(1) Class A Operator - Persons having primary responsibility for on-site operation and maintenance of underground storage tank systems.

(2) Class B Operator - Persons having daily on-site responsibility for the operation and maintenance of underground storage tank systems.

(3) Class C Operator - Daily, on-site employees having primary responsibility for addressing emergencies presented by a spill or release from an underground storage tank system.

(d) Class A and B Operators shall be trained in facility-specific operation and maintenance and/or emergency response actions within 30 days of being designated as an operator at the UST facility.

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(e) Once each month, Class B Operators shall validate that:

- (1) Each assigned facility has accomplished the required release detection monitoring;
- (2) Each assigned facility has the required release and equipment monitoring records;
- (3) Required equipment and system testing has been accomplished;
- (4) Unusual operating conditions or release detection system indications have been reported and investigated;
- (5) Routine operations and maintenance activities have been accomplished;
- (6) Spill, overfill, and corrosion protection systems are in place and operational;
- (7) Class C operators have been designated and trained.

(f) Class B Operators shall physically visit each assigned facility quarterly.

(g) Class C Operators shall be trained in facility specific emergency response actions before they assume responsibility for the UST facility.

(h) Operator Identification. Each facility will need at least one individual trained to perform the duties in each operator category (A, B, and C). At small facilities, one individual may handle all three duties. However, in the operation and maintenance structure at an underground storage tank facility that is part of a large store chain, open 24-hours, a number of persons may be designated to perform duties and responsibilities of operator classes A, B, and C.

(1) Not later than three months after the publication date of the Operator Training Plan, tank owners shall notify the Department of the number of operators in Operator Class A and Operator Class B for each UST facility. Not later than thirty days after Class A and Class B Operators complete appropriate operator training, tank owners will notify the department of the name, training completion date and training provider for each operator.

(i) The Department shall establish a registry of Class A and Class B operators to include facility responsibility, training completion date, and training provider.

(ii) The Department shall verify that training is current for Class A and Class B Operators during inspections at UST facilities.

(2) Tank owners shall designate in writing the Class C Operators for each facility and keep a copy of that designation on file at the facility.

(i) Tank owners shall be responsible for training Class C Operators.

(ii) Tank owners shall document training for Class C Operators and maintain a copy of that documentation on file at the facility.

(iii) The Department shall verify such documentation during inspections.

(i) Persons having primary responsibility and daily on-site operation and maintenance responsibility of underground storage tank systems (Class A and/or Class B Operators) shall repeat relevant facility-specific

training if the tank for which they have such responsibilities is determined to be out of compliance with the requirements of this regulation.

**Replace Section 61-92.280.40(c) to read:**

(c) Owners and operators of all UST systems must comply with the release detection requirements of this Subpart by December 22nd of the year listed in the following table:

SCHEDULE FOR PHASE-IN OF RELEASE DETECTION					
	YEAR WHEN RELEASE DETECTION IS REQUIRED (BY DECEMBER 22 OF THE YEAR INDICATED)				
YEAR SYSTEM WAS INSTALLED	1989	1990	1991	1992	1993
BEFORE 1965 OR DATE UNKNOWN	RD	P			
1965-1969		P/RD			
1970-1974		P	RD		
1975-1979		P		RD	
1980-1988		P			RD
NEW TANKS (AFTER DECEMBER 22) IMMEDIATELY UPON INSTALLATION					

P = Must begin release detection for all pressurized piping in accordance with Sections 280.41(b) and 280.42(b)(4).

RD = Must begin release detection for tanks and suction piping in accordance with Sections 280.41(a), 280.41(b), and 280.42.

**Replace Section 61-92.280.43(b)(4) to read:**

(4) A leak is suspected and subject to the requirements of Subpart E if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

Nominal Tank Capacity	Weekly Standard (one test)	Monthly Standard
550 gallons or less	10 gallons	5 gallons
551-1,000 gallons	13 gallons	7 gallons
1,001-2,000 gallons	26 gallons	13 gallons

**Revise 61-92.280.71(a) to read:**

(a) At least 30 days before beginning either permanent closure or a change-in-service under paragraphs (b) and (c) of this section, or within another reasonable time period determined by the Department, owners and operators must notify the Department of their intent to permanently close or make the change-in-service, unless such action is in response to corrective action. At least 30 days before replacing previously installed piping or previously installed dispensers, owners and operators must notify the Department of their intent. The required assessment of the excavation zone under Section 280.72 must be performed after notifying the Department but before completion of the permanent closure or a change-in-service.

**Revise 280.104(d) to read:**

(d) To demonstrate that it meets the local government bond rating test, the chief financial officer of a general purpose local government owner or operator and/or guarantor must sign a letter worded exactly as

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follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" and/or "nonsudden accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows: [complete table]

Issue date:

Maturity date:

Outstanding amount:

Bond rating:

Rating agency:

(Moody's or Standard & Poor's)

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of \$1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in R.61-92.280.104(d) as such regulations were constituted on the date shown immediately below.

[Date]\_\_\_\_\_

[Signature]\_\_\_\_\_

[Name]\_\_\_\_\_

[Title]\_\_\_\_\_

**Replace Section 61-92.280.302, Appeals, to read:**

(a) A decision involving the issuance, denial, renewal, modification, suspension, or revocation of a permit or registration may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

(b) Any person to whom an order is issued may appeal it pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.



**Fiscal Impact Statement:**

The amendment will result in fiscal impact to the State and its political subdivisions that own or operate regulated underground storage tanks (USTs). There are no identified additional personnel resource requirements necessary to implement this regulation. This amendment requires underground storage tank owners and operators to be trained on UST systems. Owners and operators will have various options for obtaining UST systems training, to include in-house training programs and training available through the Department of Health and Environmental Control. Additionally, this regulation requires new or replacement UST systems to have secondary containment when installed within one thousand feet of a community water system or potable drinking water well. Installed cost for a UST system with secondary containment is approximately 30% above that of an installed UST system without secondary containment. The proposed regulation does not affect existing UST systems. These costs (training and secondary containment) will be offset by fewer petroleum releases, quicker detection and reporting of releases, less environmental harm to the state's groundwater and surface water resources and human health. Owners and operators should benefit from having better trained operators, improved UST systems, and fewer and less costly releases to the environment.

**Statement of Need and Reasonableness:**

This statement was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11).

**DESCRIPTION OF REGULATION:**

**Purpose:** The amendment will allow the State to be compliant with the federal Underground Storage Tank Compliance Act, part of the Energy Policy Act, U.S. Public Law 109-58 – August 8, 2005, and to make stylistic changes requested by the U.S. Environmental Protection Agency (USEPA) so that codification of the State's UST Control Regulations can be finalized. This amendment will also update language in Regulation 61-92 to correlate with changes in the administrative appeals process pursuant to S.C. Act 387 (2006). The amendment is intended to reduce the number of releases from underground storage tank (UST) systems, provide early detection of releases, minimize impact from releases, and ensure owners and operators have assigned responsibility to provide immediate response to emergencies caused by releases from operating UST systems.

**Legal Authority:** State Underground Petroleum Environmental Response Bank Act, South Carolina Code Annotated, Section 44-2-50.

**Plan for Implementation:** The amendment will take effect upon approval by the Board of Health and Environmental Control and the South Carolina General Assembly and publication as final regulations in the South Carolina State Register. The regulatory additions will not require additional staffing. The regulatory additions will have negligible impact on other program areas.

(1) **Secondary Containment:** The Department's existing UST permitting process for construction of new UST systems being installed will facilitate implementation of secondary containment requirements. New installation permits issued prior to the effective date of the proposed regulatory change will not be affected. Permits issued subsequent to the effective date will require secondary containment.

(2) **Delivery Prohibition:** The authority to impose delivery prohibition for UST systems is provided in existing law, South Carolina Code Section 44-2-50. The federal requirement is for states to have written criteria for determining when a UST is ineligible to receive product and procedures for implementing delivery prohibition against an individual tank or a facility. Delivery prohibition, when appropriate, will be imposed on a per tank basis.

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(3) Operator Training requirements: Training requirements will be detailed in a Training Plan to be developed in coordination with UST owners and operators. An Operator Training Workgroup composed of DHEC staff and UST owners and operators will develop the Training Plan. The Training Plan will be published no later than August 8, 2009. Operator training will be required no later than two years subsequent to the Operator Training Plan publication date. The final plan will be distributed to stakeholders and interested parties through electronic mail, the postal service, and via the Internet on the Department's web site. Additionally, DHEC staff will conduct stakeholder meetings statewide to present the Operator training Plan.

(4) Response to U.S. Environmental Protection Agency (EPA) requests: The amendment makes stylistic and administrative changes to assist EPA in codifying the state regulations as part of the state program approval process.

(5) Language changes to correlate to S.C. Act 387 (2006): Upon approval by the state legislature, appeals language in the amendment will correlate to S.C. Act 387 (2006).

Electronic copies of the final regulations will be available from the State Register and from the Bureau of Land and Waste Management Website. Print versions will be available in the State Register and by request from the Department's Freedom of Information Office and the Bureau of Land and Waste Management UST Program.

### DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATIONS BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The amendment is needed for the State to be compliant with new requirements of the federal Energy Policy Act, to respond to U.S. Environmental Protection Agency (USEPA) requests so that codification of the State's UST Control Regulations can be finalized, and to update language in Regulation 61-92 to correlate with changes in the administrative appeals process pursuant to S.C. Act 387 (2006). The secondary containment requirement for UST systems installed within 1,000 feet of a community water system or potable drinking water well will provide greater protection for drinking water resources. While secondarily contained UST systems will cost owners approximately 30% above the cost of systems without secondary containment, owners should over time realize a cost avoidance through fewer and less severe releases to the environment. The delivery prohibition criteria and procedures reflect current practice. The new training requirements will provide UST system operators with needed training and best management practices that should result in fewer compliance violations, fewer enforcement actions, and increased protection for the environment. There are no detrimental effects associated with promulgation of delivery prohibition, the administrative changes, and the appeals procedures.

### DETERMINATION OF COSTS AND BENEFITS:

There will be cost incurred by the Department for developing the Operator Training Plan and costs associated with developing various means of delivering operator training. The Department will receive federal grant funding for such costs. State political subdivisions may experience some costs associated with obtaining operator training. However, the train-the-trainer concept will greatly minimize costs for everyone. To further minimize cost to the regulated community, the Operator Training Plan will recognize training programs that may currently be in place or developed after the Operator Training Plan is published. There will be no costs for implementing the delivery prohibition procedures. There will be an approximate 30% increased cost for installing secondarily contained UST systems above UST systems without secondary containment. This cost will be experienced by the State, its political subdivisions, and the regulated community only when new UST systems are installed. The secondary containment requirements do not affect existing UST systems. The benefits derived from the new requirements will be better-trained operators, fewer releases from operating systems, and increased protection for the environment and human health. The administrative changes to support U.S. EPA requests and to correlate to the administrative appeals language of S.C. Act 387 (2006) will have no associated costs for the State, the political subdivisions, or the regulated community.

## UNCERTAINTIES OF ESTIMATES:

The increased cost for installing new UST systems with secondary containment will vary depending on factors such as the number of tanks, type of materials, installer, and local site conditions.

## EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

There should be fewer releases and less impact to the environment due to releases from operating UST systems.

## DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATIONS ARE NOT IMPLEMENTED:

The number of leaking UST systems reported each year and the severity will continue to have detrimental effects on the environment and public health. According to reports from the Environmental Protection Agency, on a national basis, leaking UST systems are the leading source for contaminating groundwater. South Carolina has documented nearly 9,000 releases from UST systems and approximately 3,200 releases remain in need of assessment/cleanup action. Leaking UST systems will continue to impact utility systems, such as water lines, and continue to be a drain on the taxpayers and the environment.

**Statement of Rationale:**

U.S. Public Law 109-58 (August 8, 2005) established new federal requirements for regulated underground storage tanks. These regulatory amendments are necessary to comply with the changes in law. Additionally, these amendments make stylistic corrections requested by the U. S. Environmental Protection Agency to aid in codification of the regulations as part of the state program approval process. Finally, these revisions correlate the language in the regulations to that in 2006 S.C. Act 387 (2006).

Document No. 3155

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

## CHAPTER 61

Statutory Authority: 1976 Code Sections 1-23-10 et seq.,  
44-1-10 et seq., and 48-1-10 et seq.

## 61-9. Water Pollution Control Permits

**Synopsis:**

The Department has amended Regulation 61-9 for three purposes, as follows:

(1) These revisions incorporate changes to United States Environmental Protection Agency regulations promulgated in the Federal Register October 14, 2005, at 70 Federal Register 60,134, some of which the Department is not required to adopt.

(2) These revisions include requirements of 2006 S.C. Act No. 387 related to appeals of permits and orders of the Department.

(3) These revisions make miscellaneous corrections to various parts of Regulation 61-9.

**Discussion of Revisions:**

**(1) Changes related to U.S. Environmental Protection Agency amendments to regulations related to pretreatment:**

a. At item 122.21(j)(6), revise the regulation to correct a reference based on changes elsewhere in the pretreatment amendments.

b. At item 122.44(j)(1), revise the regulation to align the terminology with terminology for municipal pretreatment programs, related to the Federal amendments.

c. At item 122.62(d)(7), revise a reference, per the Federal regulation amendments.

d. At section 403.3.Definitions, related to pretreatment, delete a reserved item, add two (2) new definitions, and renumber the existing items following those which are added, as follows:

(1) At item (b), add the new term, “Best Management Practices, BMP”, and the definition, per the Federal changes.

(2) At item (c), add the new term, “Control Authority”, and the definition, per the Federal changes.

(3) Revise the numbering of previous items (b) to (p) to read (d) through (q).

(4) Renumber new item (l) as (l)(1) and add new item (2) per Department staff, revising the definition of POTW to include “...a private facility that has been determined to be a regional provider of service identified under the 208 Water Quality Management Plan.”

(5) Revise references in the renumbered item (o)(1).

(6) Move previous item (o)(2) to (o)(3) and add new item (o)(2). New (o)(2) defines a “Non-significant Categorical Industrial User.” Revise a reference in item (o)(3).

e. At section 403.5 National Pretreatment Standards: Prohibited Discharges, add items as follows:

(1) Based on staff concerns, new items (c)(2)(i) and (ii) clarifying requirements for limits in pretreatment permits.

(2) New Federal item (c)(4) regarding pretreatment best management practices (BMP).

(3) Based on staff concerns, new items (d)(1) and (2) clarifying requirements for local limits in pretreatment permits.

f. At section 403.6 National Pretreatment Standards: Categorical Standards,

(1) At paragraph (b)(5), correct a reference.

(2) At paragraph (c), revise a reference, based on the Federal changes.

(3) At paragraph (d)(2), correct a word grammatically.

(4) Add new item (d)(5), allowing limits to be stated as mass rather than as guideline concentrations, with Department approval and under specific circumstances.

(5) Add new item (d)(6), allowing limits, for specific categories of industry, to be stated as concentrations rather than as guideline-based mass, with Department approval and under specific circumstances.

(6) Renumber existing item (d)(5) to (7) and revise the item related to mass versus concentration conversions, or the reverse, of limits, based on Federal requirements.

(7) Renumber existing item (d)(6) to (8) and revise the item related to mass versus concentration conversions, or the reverse, of limits, based on Federal requirements.

(8) Revise paragraphs (e) and (f), each by removing a reference.

g. At section 403.7 Removal Credits,

(1) Revise paragraph (h) introductory language and (h)(2)(i) for grammar and,

(2) Delete and reserve item (h)(2)(ii), related to combined sewer overflows, as there are no combined sewers and none are allowed by regulation in South Carolina.

(3) Delete item (h)(2)(iii), per the Federal regulation.

h. At section 403.8,

(1) Revise item (f)(1)(iii), deleting items (A) through (E) and adding new items (A), allowing use of general control mechanisms, and (B), based on Federal changes;

(2) Revise a reference in item (f)(1)(v), based on the Federal changes;

(3) Revise item (f)(1)(vi)(B) for clarity;

(4) Revise item (f)(2)(v), related to monitoring by POTW of Industrial Users;

(5) Renumber existing item (f)(2)(vi) to (vii);

(6) Add new item (f)(2)(vi) related to plans of Significant Industrial Users related to slug discharges;

(7) Renumber existing item (f)(2)(vii), related to public participation requirements, to (viii) and revise the introductory language and items (A), (B), (C), (F), and (H);

(8) In item (f)(3), add a reference;

(9) In item (f)(4), clarify that a POTW choosing not to develop local limits for a particular Industrial User is subject to concurrence by the Department;

(10) In item (f)(6), revise references.

(i) In section 403.12,

(1) Remove and reserve paragraph (a);

(2) Revise a reference in item (b)(4)(ii), based on Federal changes;

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- (3) Revise item (b)(5)(ii) concerning best management practices;
- (4) Remove item (b)(5)(iii), defining sampling (see new 403.12(g)(3)), per the Federal revisions;
- (5) Redesignate items (b)(5)(iv) through (b)(5)(viii), respectively, as items (b)(5)(iii) through (b)(5)(vii);
- (6) Revise paragraph (b)(6) for grammar;
- (7) Revise item (b)(7)(ii) to conform with earlier Federal language;
- (8) Revise paragraph (e)(1) as to Non-significant Categorical Users and BMP, based on the Federal changes;
- (9) Delete existing paragraph (e)(2), based on Federal changes;
- (10) Add a new paragraph (e)(2), allowing a POTW, with Department approval, to waive sampling by an industrial user, under stated restrictions, based on Federal changes;
- (11) Re-designate paragraph (e)(3) as paragraphs (e)(4);
- (12) Add new paragraph (e)(3), allowing POTW, with Department approval, to reduce reporting by Industrial Users, with stated restrictions;
- (13) Revise item (g)(1), related to Non-significant Categorical Users, based on the Federal changes;
- (14) Revise item (g)(2), related to re-sampling after violations, based on the Federal changes;
- (15) Per Federal requirements, revise references in item (g)(3) and add requirements related to sampling;
- (16) Re-designate items (g)(4) and (g)(5) as items (g)(5) and (g)(6);
- (17) Add new item (g)(4), relating to historical sampling, per Federal requirements;
- (18) Revise newly designated item (g)(6) for a reference and for sampling requirements, based on the Federal changes;
- (19) Revise paragraph (h) as to BMP, based on the Federal changes;
- (20) Revise item (i)(1) as to POTW reporting their Industrial Users, based on the Federal changes;
- (21) Revise paragraph (j) as to reporting by Industrial Users, based on the Federal changes;
- (22) Revise item (l)(1)(ii) as to signatures on reports, based on the Federal changes;
- (23) Revise item (l)(2) for grammar;
- (24) Revise paragraph (m) to clarify reference to the Department;

(25) Revise item (o)(1) introductory text, based on Federal requirements;

(26) Revise paragraph (o)(2) related to BMP, based on Federal requirements and including staff revisions;

(27) Add paragraph (q) related to certification by Non-significant Categorical Industrial Users, per Federal requirements.

(j) Revise item 403.13(m)(2) related to procedures for appeals to the United States Environmental Protection Agency on Fundamentally-different Factors variances.

(k) In section 403.15,

(1) Revise paragraph (a) related to pollutants in an Industrial User's intake water, based on Federal requirements, and

(2) Revise paragraph (b)(1), based on Federal requirements, related to pollutants in an Industrial User's intake water, by adding new item (i) and redesignating existing language as item (ii).

(l) In Part 403, Appendix C, revise the list of Federal pretreatment categories to include new categories and revise category names.

(m) At Part 403, Appendix G, revise note 1 to Table I, Regulated Pollutants in Part 503 Eligible for a Removal Credit to refer to carbon dioxide as well as total hydrocarbons, per Federal requirements, as well as to clarify reference to South Carolina regulations;

**(2) Changes necessary to update Regulation 61-9 to comply with changes in state law pursuant to 2006 S.C. Act No 387 related to appeals of permits and orders:**

(a) Revise the reference in 124.5(b) related to the section of this regulation describing appeals procedures.

(b) Delete paragraph 124.15(c), related to appeals.

(c) Remove the reserved description of section 124.19 and add requirements related to appeals, including those appropriate matters previously stated in 124.15(c) and new requirements for South Carolina Act 387 (2006).

**(3) Miscellaneous changes to address clerical corrections, renumbering, relocation, or revision of the existing regulation to reflect the changes resulting from the appropriate revised requirements, as follows:**

(a) Revise the definition of "Draft Permit" in paragraph 122.2(b) related to procedures related to appeals stated in Part 124.

(b) Delete the language in paragraph 124.56(e) related to U.S. Environmental Protection Agency regulation, 40 CFR 501 State Sludge Management Program Regulations, and reserve the paragraph.

(c) Revise a reference in 403.7(a)(3)(iv)(C) based on changes in South Carolina solid waste regulations.

(d) Revise references in 503.4(a), (b), and(c) and 504.4(a), (b), and (c) based on changes in South Carolina solid waste regulations.

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(e) Revise the document named in 503.12(m) and 504.12(m) to read as follows: "... fertilizer recommendations (such as "Nutrient Management for South Carolina", Cooperative Extension Service, Clemson University, EC 476)." This is a revised edition of the Clemson manual.

(f) In 503.50 and 504.50, state a specific date for the initial requirement to develop an odor minimization plan, based on the promulgation of the regulation.

(g) Revise 505.45(i)(9) to correct a reference.

(h) Revise the following items to entail only clerical corrections:

122.21(k)

122.26(a)(1)(ii)

122.26(b)(14), introductory language

122.26(e)(7)(i)(B)

122.32(a)(2)

122.32(f)

122.62(d)(5)

122.64(a)(4)(ii)

403.3(c)(2)

403, Appendix G, table II

503.32 Table 4

504.22(a)(2)

505.41(p)(5)

**Instructions:** Amend R.61-9 pursuant to each individual instruction provided with the text below:

Note: Where a regulation item number is followed by \* \* \*, the asterisks represent existing language which is to remain unchanged.

**Text:**

**At 122.2(b) Definitions, revise the definition, in alphabetical order, of "Draft Permit" to read as follows:**

"Draft Permit" means a document prepared by the staff of the Department, in accordance with R.61-9.124.6, prior to public notice of an application for a permit by a discharger. This document indicates the Department's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit to discharge. It contains proposed effluent standards and limitations, proposed compliance schedules and other proposed conditions or restrictions deemed necessary by the Department for a discharge. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in R.61-9.124.5, are types of draft



permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in R.61-9.124.5, is not a draft permit. A “proposed permit” is not a draft permit.

**Revise item 122.21(j)(6)(ii) to read as follows:**

(ii) POTW with one or more SIU shall provide the following information for each SIU, as defined at R.61-9.403.3(o), that discharges to the POTW:

**Revise the introductory language of 122.21(k) as follows, items (k)(1) and following remaining unchanged:**

(k) Application requirements for new sources and new discharges.

New manufacturing, commercial, mining, and silvicultural dischargers applying for NPDES permits (except for new discharges of facilities subject to the requirements of paragraph (h) of this section or new discharges of storm water associated with industrial activity which are subject to the requirements of section 122.26(c)(1) and this section (except as provided by section 122.26(c)(1)(ii)) shall provide the following information to the Department, using application forms provided by the Department.

**Revise 122.26(a)(1)(ii) to read as follows:**

(ii) A discharge associated with industrial activity (see section 122.26(a)(4));

**Revise the introductory language of 122.26(b)(14) to read as follows, items (14)(i) and following remaining the same:**

(14) “Storm water discharge associated with industrial activity” means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under this regulation. For the categories of industries identified in this section, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR Part 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant’s industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs (b)(14)(i) through (xi) of this section) include those facilities designated under the provisions of paragraph (a)(1)(v) of this section. The following categories of facilities are considered to be engaging in “industrial activity” for purposes of paragraph (b)(14):

**Revise 122.26(e)(7)(i)(B) to read as follows:**

(B) For any municipality with a population of less than 250,000 which submits a timely Part I group application under paragraph (e)(2)(i)(B) of this section, the Department shall issue or deny permits for storm water discharges associated with an industrial activity no later than May 17, 1994, or, for any such municipality which fails to complete a Part II group permit application by May 17, 1993, one year after receipt of a complete permit application;

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**Revise item 122.32(a)(2) to read as follows:**

(2) You are designated by the Department, including where the designation is pursuant to 40 CFR 123.35(b)(3) or (b)(4) or is based upon a petition under section 122.26(f).

**Revise the introductory language of item 122.32(f) to read as follows, items (f)(1) and following remaining the same:**

(f) Process for designating small MS4 to require storm water NPDES permitting. The Department will designate small MS4s according to the following criteria as a determination that a storm water discharge results in or has the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

**Revise item 122.44(j)(1) to read as follows:**

(1) Identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of CWA and R.61-9.403.

**Revise item 122.62(d)(5) to read as follows:**

(5) When the permittee has filed a request for a variance under CWA section 301(c), 301(k), or 316(a) or for “fundamentally different factors” within the time specified in section 122.21.

**Revise item 122.62(d)(7) to read as follows:**

(7) Reopener. When required by the “reopener” conditions in a permit, which are established in the permit under section 122.44(b) (for CWA toxic effluent limitations and standards for sewage sludge use or disposal, see also section 122.44(c)) or R.61-9.403.18(e) (Pretreatment program).

**Revise item 122.64(a)(4)(ii) to read as follows:**

(ii) Cessation of substantially all manufacturing operations, which are a basis for effluent limits or which contribute to a discharge, for a period of 180 days or longer.

**Revise item 124.5(b) to read as follows:**

(b) See section 124.19 for appeals procedure.

**Delete item 124.15(c).**

**Revise section 124.19, presently reserved, to read as follows:**

124.19 Appeal of NPDES and State Permits.

a. A Department decision involving issuance, denial, renewal, modification, suspension, or revocation of an NPDES, Land Application, or State permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 1, Chapter 23 and Title 44, Chapter 1.

b. Any person to whom an order, related to an NPDES, Land Application, or State permit, is issued may appeal it pursuant to applicable law, including S.C. Code Title 1, Chapter 23 and Title 44, Chapter 1.

**Delete the language of item 124.56(e) and reserve the item, to read as follows:**

(e) [Reserved.]

**Under section 403.3 Definitions, delete existing item (e) [Reserved], renumber existing items (f) to (p) to (g) through (q), respectively, renumber existing items (b) to (d) to (d) through (f), respectively, add new items (b) and (c), and revise items (l) and (o), renumbered as stated above, to read as follows:**

(b) The term Best Management Practices or BMP means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in Sections 403.5(a)(1) and (b). BMP also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

(c) The term Control Authority refers to:

(1) The POTW, if the POTW's Pretreatment Program submission has been approved in accordance with the requirements of Section 403.11; or

(2) The Department, if the submission has not been approved.

(d) The term “Approved POTW Pretreatment Program” or “Program” or “POTW Pretreatment Program” means a program administered by a POTW that meets the criteria established in this regulation (sections 403.8 and 403.9) and which has been approved by the Regional Administrator or the Department in accordance with section 403.11 of this regulation.

(e) The term “Indirect Discharge” or “Discharge” means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the CWA or Section 48-1-90 of the Pollution Control Act (PCA).

(f) The term “Industrial User” or “User” means a source of Indirect Discharge.

(g) The term “interference” means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(2) Therefore is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act, and the South Carolina Pollution Control Act.

(h) The term “National Pretreatment Standard,” “Pretreatment Standard,” or “Standard” means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307(b) and (c) of CWA, which applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to section 403.5.

(i)(1) The term “New Source” means any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of proposed

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Pretreatment Standards under section 307(c) of CWA which will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:

(i) The building, structure, facility or installation is constructed at a site at which no other source is located; or

(ii) The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered.

(2) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility or installation meeting the criteria of subsections (1)(ii), or (1)(iii) of this section but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

(i) Begun, or caused to begin as part of a continuous on-site construction program:

(A) Any placement, assembly, or installation of facilities or equipment; or

(B) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(ii) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

(j) The terms "NPDES Permit" or "Permit" means a permit including a Land Application permit issued to a POTW pursuant to section 402 of CWA or Section 48-1-100 of the Pollution Control Act (See R.61-9.122 or R.61-9.505).

(k) The term "Pass Through" means a Discharge which exits the POTW into waters of the State or of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

(l) (1) The term "POTW Treatment Plant" means that portion of the POTW which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.

(2) For purposes of Part 403, the term "POTW" shall mean publicly owned treatment works or a private facility that has been determined to be a regional provider of service identified under the 208 Water Quality Management Plan.

(m) The term “Pretreatment” means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical or biological processes, process changes or by other means, except as prohibited by section 403.6(e). Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the POTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with section 403.6(f).

(n) The term “Pretreatment Requirements” means any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.

(o) Significant Industrial User.

(1) Except as provided in subsections (2) and (3) of this section, the term Significant Industrial User means:

(i) All Industrial Users subject to Categorical Pretreatment Standards under section 403.6 and 40 CFR chapter I, subchapter N and

(ii) Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with section 403.8(f)(6)).

(2) The Control Authority may determine that an Industrial User subject to categorical Pretreatment Standards under Section 403.6 and 40 CFR chapter I, subchapter N is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

(i) The Industrial User, prior to the Control Authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;

(ii) The Industrial User annually submits the certification statement required in Section 403.12(q) together with any additional information necessary to support the certification statement; and

(iii) The Industrial User never discharges any untreated, concentrated wastewater.

(3) Upon a finding that an Industrial User meeting the criteria in paragraph (o)(1)(ii) of this section has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirement, the Control Authority may at any time, on its own initiative or in response to a petition received from an Industrial User or POTW, and in accordance with section 403.8(f)(6), determine that such Industrial User is not a Significant Industrial User.

(p) The term “Submission” means a request by a POTW for approval of a Pretreatment Program to the Department.

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(q) The term "Water Management Division Director" means one of the Directors of the Water Management Divisions within the Regional offices of the Environmental Protection Agency or this person's delegated representative.

**Revise item 403.5(c)(2) to read as follows:**

(2) All other POTW shall, in cases where pollutants contributed by User(s) result in Interference or Pass Through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the POTW Treatment Plant's facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's NPDES permit or sludge use or disposal practices.

(i) This evaluation must reflect the POTW's reasonable potential analysis utilized for all pollutants completed by the Department as part of the NPDES process (R61-9.122). The POTW will utilize the Department's analysis in the determination of appropriate pretreatment requirements.

(ii) This analysis must utilize the current Water Quality Standards (R.61-68).

**Add new item 403.5(c)(4) to read as follows:**

(4) POTW may develop Best Management Practices (BMP) to implement paragraphs (c)(1) and (c)(2) of this section. Such BMP shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.

**Add new items 403.5(d)(1) and (2), after introductory paragraph (d), to read as follows:**

(1) The POTW shall utilize the EPA Guidance Manual (EPA 833-R-04-002) for the development of Local Limits.

(2) Appropriate removal rates shall be based on wastewater plant site-specific influent and effluent data unless otherwise approved by the Department.

**Revise item 403.6(b)(5) to read as follows:**

(5) Requests for hearing and/or legal decision. Within 30 days following the date of receipt of notice of the final determination as provided for by subsection (b)(4)(iv) of this section, the Requester may submit a petition to reconsider or contest the decision to the Regional Administrator who shall act on such petition expeditiously and state the reasons for his or her determination in writing.

**Revise item 403.6(c) to read as follows:**

(c) Deadline for compliance with categorical standards. Compliance by existing sources with categorical Pretreatment Standards shall be within 3 years of the date the Standard is effective unless a shorter compliance time is specified in the appropriate subpart of 40 CFR chapter I, subchapter N. Direct dischargers with NPDES Permits modified or reissued to provide a variance pursuant to section 301(i)(2) of the Act shall be required to meet compliance dates set in any applicable categorical Pretreatment Standard. Existing sources which become Industrial Users subsequent to promulgation of an applicable categorical Pretreatment Standard shall be considered existing Industrial Users except where such sources meet the definition of a New Source as defined in Section 403.3(i). New Sources shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet applicable Pretreatment Standards before beginning to Discharge. Within the shortest feasible time (not to exceed 90 days), New Sources must meet all applicable Pretreatment Standards.

**Revise item 403.6(d)(2) to read as follows:**

(2) When the limits in a categorical Pretreatment Standard are expressed only in terms of mass of pollutant per unit of production, the Control Authority may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day or effluent concentration for purposes of calculating effluent limitations applicable to individual Industrial Users.

**Renumber existing items 403.6(d)(5), (6), and (7) to (7), (8), and (9), respectively, add new items (5) and (6), and revise renumbered items (7) and (8), to read as follows:**

(5) When the limits in a categorical Pretreatment Standard are expressed only in terms of pollutant concentrations, an Industrial User may request that the Control Authority convert the limits to equivalent mass limits. The determination to convert concentration limits to mass limits is within the discretion of the Control Authority and with prior approval of the Department. The Control Authority may establish equivalent mass limits after Department review and approval only if the Industrial User meets all the following conditions in paragraph (d)(5)(i)(A) through (d)(5)(i)(E) of this section.

(i) To be eligible for equivalent mass limits, the Industrial User must:

(A) Employ, or demonstrate that it will employ, water conservation methods and technologies that substantially reduce water use during the term of its control mechanism;

(B) Currently use control and treatment technologies adequate to achieve compliance with the applicable categorical Pretreatment Standard, and not have used dilution as a substitute for treatment;

(C) Provide sufficient information to establish the facility's actual average daily flow rate for all wastestreams, based on data from a continuous effluent flow monitoring device, as well as the facility's long-term average production rate. Both the actual average daily flow rate and long-term average production rate must be representative of current operating conditions;

(D) Not have daily flow rates, production levels, or pollutant levels that vary so significantly that equivalent mass limits are not appropriate to control the Discharge; and

(E) Have consistently complied with all applicable categorical Pretreatment Standards during the period, at least three years, prior to the Industrial User's request for equivalent mass limits.

(ii) An Industrial User subject to equivalent mass limits must:

(A) Maintain and effectively operate control and treatment technologies adequate to achieve compliance with the equivalent mass limits;

(B) Continue to record the facility's flow rates through the use of a continuous effluent flow monitoring device. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of not greater than 10 percent from the true discharge rates throughout the range of expected discharge volumes;

(C) Continue to record the facility's production rates and notify the Control Authority whenever production rates are expected to vary by more than 20 percent from its baseline production rates determined in paragraph (d)(5)(i)(C) of this section. Upon notification of a revised production

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rate, the Control Authority must reassess the equivalent mass limit and revise the limit as necessary to reflect changed conditions at the facility; and

(D) Continue to employ the same or comparable water conservation methods and technologies as those implemented pursuant to paragraph (d)(5)(i)(A) of this section so long as it discharges under an equivalent mass limit.

(iii) A Control Authority which chooses to establish equivalent mass limits:

(A) Must calculate the equivalent mass limit by multiplying the actual average daily flow rate of the regulated process(es) of the Industrial User by the concentration-based daily maximum and monthly average Standard for the applicable categorical Pretreatment Standard and the appropriate unit conversion factor;

(B) Upon notification of a revised production rate, must reassess, with prior Department approval, the equivalent mass limit and recalculate the limit as necessary to reflect changed conditions at the facility; and

(C) May retain the same equivalent mass limit in subsequent control mechanism terms, with prior Department approval, if the Industrial User's actual average daily flow rate was reduced solely as a result of the implementation of water conservation methods and technologies, and the actual average daily flow rates used in the original calculation of the equivalent mass limit were not based on the use of dilution as a substitute for treatment pursuant to paragraph (e) of this section. The Industrial User must also be in compliance with section 403.17 (regarding the prohibition of bypass).

(iv) The Control Authority may not express limits in terms of mass for pollutants such as pH, temperature, radiation, or other pollutants which cannot appropriately be expressed as mass.

(6) The Control Authority may, with prior Department approval, convert the mass limits of the categorical Pretreatment Standards at 40 CFR parts 414, 419, and 455 to concentration limits for purposes of calculating limitations applicable to individual Industrial Users under the following conditions. When converting such limits to concentration limits, the Control Authority must use the concentrations listed in the applicable subparts of 40 CFR parts 414, 419, and 455 and document that dilution is not being substituted for treatment as prohibited by paragraph (e) of this section.

(7) Equivalent limitations calculated in accordance with paragraphs (d)(3), (d)(4), (d)(5), and (d)(6) of this section are deemed Pretreatment Standards for the purposes of section 307(d) of the CWA and this regulation. The Control Authority must document how the equivalent limits were derived and make this information publicly available. Once incorporated into its control mechanism, the Industrial User must comply with the equivalent limitations in lieu of the promulgated categorical standards from which the equivalent limitations were derived.

(8) Many categorical pretreatment standards specify one limit for calculating maximum daily discharge limitations and a second limit for calculating maximum monthly average, or 4-day average, limitations. Where such standards are being applied, the same production or flow figure shall be used in calculating both the average and the maximum equivalent limitation.

(9) Any Industrial User operating under a control mechanism incorporating equivalent mass or concentration limits calculated from a production based standard shall notify the Control Authority within two (2) business days after the User has a reasonable basis to know that the production level will significantly change within the next calendar month. Any User not notifying the Control Authority of such anticipated change will be required to meet the mass or concentration limits in its control mechanism that were based on the original estimate of the long term average production rate.



**Revise item 403.6(e) and introductory language of item (f) to read as follows, items (f)(1) and following remaining unchanged:**

(e) Dilution prohibited as substitute for treatment. Except where expressly authorized to do so by an applicable Pretreatment Standard or Requirement, no Industrial User shall ever increase the use of process water, or in any other way attempt to dilute a Discharge as a partial or complete substitute for adequate treatment to achieve compliance with a Pretreatment Standard or Requirement. The Control Authority may impose mass limitations on Industrial Users which are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases where the imposition of mass limitations is appropriate.

(f) Combined wastestream formula. Where process effluent is mixed prior to treatment with wastewaters other than those generated by the regulated process, fixed alternative discharge limits may be derived by the Control Authority or by the Industrial User with the written concurrence of the Control Authority. These alternative limits shall be applied to the mixed effluent. When deriving alternative categorical limits, the Control Authority or Industrial User shall calculate both an alternative daily maximum value using the daily maximum value(s) specified in the appropriate categorical Pretreatment Standard(s) and an alternative consecutive sampling day average value using the monthly average value(s) specified in the appropriate categorical Pretreatment Standard(s). The Industrial User shall comply with the alternative daily maximum and monthly average limits fixed by the Control Authority until the Control Authority modifies the limits or approves an Industrial User modification request. Modification is authorized whenever there is a material or significant change in the values used in the calculation to fix alternative limits for the regulated pollutant. An Industrial User must immediately report any such material or significant change to the Control Authority. Where appropriate new alternative categorical limits shall be calculated within 30 days.

**Revise item 403.7(a)(3)(iv)(C) to read as follows:**

(C) For any pollutant in sewage sludge when the POTW disposes all of its sewage sludge in a municipal solid waste landfill unit that meets the criteria in 40 CFR Part 258 and R.61-107.

**Revise the introductory language of item 403.7(h) to read as follows, items (h)(1) and following to remain the same:**

(h) Compensation for Overflow. "Overflow" means the intentional or unintentional diversion of flow from the POTW before the POTW Treatment Plant. POTW which at least once annually overflow untreated wastewater to receiving waters may claim Consistent Removal of a pollutant only by complying with either paragraphs (h)(1) or (h)(2) of this section. However, paragraph (h) of this section shall not apply where Industrial User(s) can demonstrate that Overflow does not occur between the Industrial User(s) and the POTW Treatment Plant;

**Revise item 403.7(h)(2)(i) to read as follows:**

(2) (i) The Consistent Removal claimed is reduced pursuant to the following equation:

$$r_c = r_m \times \left( \frac{8760 - Z}{8760} \right)$$

Where:

$r_m$  = POTW's Consistent Removal rate for that pollutant as established under paragraphs (a)(1) and (b)(2) of this section

$r_c$  = removal corrected by the Overflow factor

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Z = hours per year that overflow occurred between the Industrial User(s) and the POTW Treatment Plant, the hours either to be shown in the POTW's current NPDES permit application or the hours, as demonstrated by verifiable techniques, that a particular Industrial User's Discharge overflows between the Industrial User and the POTW Treatment Plant; and

**Remove the language from item 403.7(h)(2)(ii) and reserve the item, as follows:**

(ii) [Reserved.]

**Remove the language from item 403.7(h)(2)(iii) and reserve the item, as follows:**

(iii) [Reserved.]

**Revise the introductory language of item 403.8(f)(1)(iii), delete items (iii)(A) through (E), and add new items (iii)(A) and (B), to read as follows:**

(iii) Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under Section 403.3, this control shall be achieved through individual permits or equivalent individual control mechanisms issued to each such User except as follows.

(A) (1) At the discretion of the POTW and with prior Department approval, this control may include use of general control mechanisms if the following conditions are met. All of the facilities to be covered must:

(i) Involve the same or substantially similar types of operations;

(ii) Discharge the same types of wastes;

(iii) Require the same effluent limitations;

(iv) Require the same or similar monitoring; and

(v) In the opinion of the POTW, and with prior Department approval, are more appropriately controlled under a general control mechanism than under individual control mechanisms.

(2) To be covered by the general control mechanism, the Significant Industrial User must file a written request for coverage that identifies its contact information, production processes, the types of wastes generated, the location for monitoring all wastes covered by the general control mechanism, any requests in accordance with section 403.12(e)(2) for a monitoring waiver for a pollutant neither present nor expected to be present in the Discharge, and any other information the POTW deems appropriate. A monitoring waiver for a pollutant neither present nor expected to be present in the Discharge is not effective in the general control mechanism until after the POTW has provided written notice to the Significant Industrial User that, with prior Department approval, such a waiver request has been granted in accordance with section 403.12(e)(2). The POTW must retain a copy of the general control mechanism, documentation to support the POTW's determination that a specific Significant Industrial User meets the criteria in paragraphs (f)(1)(iii)(A)(1) through (5) of this section, and a copy of the User's written request for coverage for 3 years after the expiration of the general control mechanism. A POTW may not control a Significant Industrial User through a general control mechanism where the facility is subject to production-based, categorical Pretreatment Standards or categorical Pretreatment Standards expressed as mass of pollutant

discharged per day or for Industrial Users whose limits are based on the Combined Wastestream Formula or Net/Gross calculations (sections 403.6(f) and 403.15).

(B) Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

(1) Statement of duration (in no case more than five years);

(2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;

(3) Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in S.C. R.61-9, part 403, categorical Pretreatment Standards, local limits, and State and local law;

(4) Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored (including the process for seeking a waiver for a pollutant neither present nor expected to be present in the Discharge in accordance with section 403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law;

(5) Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines;

(6) Requirements to control Slug Discharges, if determined by the POTW to be necessary.

**Revise item 403.8(f)(1)(v) to read as follows:**

(v) Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under section 403.12(o) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of CWA;

**Revise item 403.8(f)(1)(vi)(B) to read as follows:**

(B) Pretreatment requirements which will be enforced through the remedies set forth in paragraph (f)(1)(vi)(A) of this section, will include but not be limited to, the duty to allow or carry out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the POTW; any requirements set forth in control mechanisms issued by the POTW; or any reporting requirements imposed by the POTW or these regulations in this part. The POTW shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any Discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons. The POTW shall also have authority and procedures (which shall include notice to the affected Industrial Users and an opportunity to respond) to halt or prevent any Discharge to the POTW which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the POTW.

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The Department shall have authority to seek judicial relief and may also use administrative penalty authority when the POTW has sought a monetary penalty which the Department believes to be insufficient.

**Revise introductory language of item 403.8(f)(2)(v), delete items (v)(A) through (D), and add new items (v)(A) through (C), to read as follows:**

(v) Randomly sample and analyze the effluent from Industrial Users and conduct surveillance activities in order to identify, independent of information supplied by Industrial Users, occasional and continuing noncompliance with Pretreatment Standards. Inspect and sample the effluent from each Significant Industrial User at least once a year, except as otherwise specified below:

(A) Where the POTW has authorized the Industrial User subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard in accordance with section 403.12(e)(3), the POTW must sample for the waived pollutant(s) at least once during the term of the Categorical Industrial User's control mechanism. In the event that the POTW subsequently determines that a waived pollutant is present or is expected to be present in the Industrial User's wastewater based on changes that occur in the User's operations, the POTW must immediately begin at least annual effluent monitoring of the User's Discharge and inspection.

(B) Where the POTW has determined that an Industrial User meets the criteria for classification as a Non-Significant Categorical Industrial User, the POTW must evaluate, at least once per year, whether an Industrial User continues to meet the criteria in section 403.3(o)(2).

(C) In the case of Industrial Users subject to reduced reporting requirements under section 403.12(e)(3), the POTW must randomly sample and analyze the effluent from Industrial Users and conduct inspections at least once every two years. If the Industrial User no longer meets the conditions for reduced reporting in section 403.12(e)(3), the POTW must immediately begin sampling and inspecting the Industrial User at least once a year.

**Renumber items 403.8(f)(2)(vi) and (vii) to (vii) and (viii), respectively, add new item (vi), and revise the introductory language of renumbered item (viii) and the language of items (viii)(A), (B), (C), (F), and (H), to read as follows:**

(vi) Evaluate whether each such Significant Industrial User needs a plan or other action to control Slug Discharges. For Industrial Users identified as significant prior to November 14, 2005, this evaluation must have been conducted at least once by October 14, 2006; additional Significant Industrial Users must be evaluated within 1 year of being designated a Significant Industrial User. For purposes of this subsection, a Slug Discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause interference or pass through, or in any other way violate the POTW's regulations, local limits or permit conditions. The results of such activities shall be available to the Department upon request. Significant Industrial Users are required to notify the POTW immediately of any changes at its facility affecting potential for a Slug Discharge. If the POTW decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:

(A) Description of discharge practices, including non-routine batch discharges;

(B) Description of stored chemicals;

(C) Procedures for immediately notifying the POTW of Slug Discharges, including any discharge that would violate a prohibition under section 403.5(b) with procedures for follow-up written notification within five days;

(D) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response;

(vii) Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under section 403.12, or indicated by analysis, inspection, and surveillance activities described in paragraph (f)(2)(v) of this section. Sample-taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions; and

(viii) Comply with the public participation requirements of 40 CFR part 25 in the enforcement of National Pretreatment Standards. These procedures shall include provision for at least annual public notification in a newspaper(s) of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW of Industrial Users which, at any time during the previous 12 months, were in significant noncompliance with applicable Pretreatment requirements. For the purposes of this provision, a Significant Industrial User (or any Industrial User which violates paragraphs (f)(2)(viii)(C), (D), or (H) of this section) is in significant noncompliance if its violation meets one or more of the following criteria:

(A) Chronic violations of wastewater Discharge limits, defined here as those in which sixty-six percent or more of all of the measurements taken for the same pollutant parameter during a six-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including instantaneous limits, as defined by 403.3;

(B) Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent or more of all of the measurements taken for the same pollutant parameter during a six-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement including instantaneous limits, as defined by 403.3 multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH);

(C) Any other violation of a Pretreatment Standard or Requirement as defined by 403.3 (daily maximum, long-term average, instantaneous limit, or narrative Standard) that the POTW determines has caused, alone or in combination with other Discharges, interference or pass-through (including endangering the health of POTW personnel or the general public);

(D) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority under paragraph (f)(1)(vi)(B) of this section to halt or prevent such a discharge;

(E) Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance;

(F) Failure to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

(G) Failure to accurately report noncompliance;

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(H) Any other violation or group of violations, which may include a violation of Best Management Practices, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment program.

### **Revise items 403.8(f)(3) and (4) to read as follows:**

(3) Funding. The POTW shall have sufficient resources and qualified personnel to carry out the authorities and procedures described in paragraphs (f)(1) and (2) of this section. In some limited circumstances, funding and personnel may be delayed where (i) the POTW has adequate legal authority and procedures to carry out the Pretreatment Program requirements described in this section, and (ii) a limited aspect of the Program does not need to be implemented immediately. (See 403.9(b).)

(4) Local limits. The POTW shall develop local limits as required in section 403.5(c)(1) or demonstrate to the satisfaction of the Department that they are not necessary.

### **Revise item 403.8(f)(6) to read as follows:**

(6) The POTW shall prepare and maintain a list of its Industrial Users meeting the criteria in section 403.3(o)(1). The list shall identify the criteria in section 403.3(o)(1) applicable to each Industrial User and, where applicable, shall also indicate whether the POTW has made a determination pursuant to Section 403.3(o)(3) that such Industrial User should not be considered a Significant Industrial User. The initial list shall be submitted to the Department pursuant to section 403.9 or as a non-substantial modification pursuant to section 403.18(d). Modifications to the list shall be submitted to the Department pursuant to section 403.12(i)(1).

### **Delete the language of item 403.12(a) and reserve the item, as follows:**

(a) [Reserved.]

### **Revise item 403.12(b)(4)(ii) to read as follows:**

(ii) Other streams as necessary to allow use of the combined waste stream formula of section 403.6(f). (See paragraph (b)(5)(iv) of this section.)

### **Revise item 403.12(b)(5)(ii) to read as follows:**

(ii) In addition, the User shall submit the results of sampling and analysis identifying the nature and concentration (or mass, where required by the Standard or Control Authority) of regulated pollutants in the Discharge from each regulated process. Both daily maximum and average concentration (or mass, where required) shall be reported. The sample shall be representative of daily operations. In cases where the Standard requires compliance with a Best Management Practice or pollution prevention alternative, the User shall submit documentation as required by the Control Authority or the applicable Standards to determine compliance with the Standard;

### **Delete item 403.12(b)(5)(iii) and renumber items (iv) through (viii) to (iii) through (vii), respectively.**

### **Revise item 403.12(b)(6) to read as follow:**

(6) Certification. A statement, reviewed by an authorized representative of the Industrial User (as defined in paragraph (l) of this section) and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O and M) and/or additional Pretreatment is required for the Industrial User to meet the Pretreatment Standards and Requirements; and

**Revise item 403.12(b)(7)(ii) to read as follow:**

(ii) If the categorical Pretreatment Standard is modified by a removal allowance (section 403.7), the combined waste stream formula (section 403.6(f)), and/or a Fundamentally Different Factors variance (section 403.13) at the time the User submits the report required by paragraph (b) of this section, the information required by paragraphs (b)(6) and (7) of this section shall be submitted by the Industrial User to the Control Authority within 60 days after the modified limit is approved.

**Revise item 403.12(e)(1) to read as follows:**

(1) Any Industrial User subject to a categorical Pretreatment Standard (except a Non-Significant Categorical User as defined in section 403.3(o)(2)), after the compliance date of such Pretreatment Standard, or, in the case of a New Source, after commencement of the discharge into the POTW, shall submit to the Control Authority during the months of June and December, unless required more frequently in the Pretreatment Standard or by the Control Authority or the Department, a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the Discharge reported in paragraph (b)(4) of this section, except that the Control Authority may require more detailed reporting of flows. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (or pollution prevention alternative), the User shall submit documentation required by the Control Authority or the Pretreatment Standard necessary to determine the compliance status of the User. At the discretion of the Control Authority and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the Control Authority may modify the months during which the above reports are to be submitted.

**Delete existing item 403.12(e)(2) and add new item (e)(2) to read as follows:**

(2) The Control Authority may with prior Department approval authorize the Industrial User subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard if the Industrial User has demonstrated through sampling and other technical factors that the pollutant is neither present nor expected to be present in the Discharge, or is present only at background levels from intake water and without any increase in the pollutant due to activities of the Industrial User. This authorization is subject to the following conditions:

(i) The Control Authority may with prior Department approval authorize a waiver where a pollutant is determined to be present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable categorical Standard and otherwise includes no process wastewater and the POTW does not have an effluent NPDES limit for this pollutant.

(ii) The monitoring waiver is valid only for the duration of the effective period of the Permit or other equivalent individual control mechanism, but in no case longer than 5 years. The User must submit a new request for the waiver before the waiver can with prior Department approval be granted for each subsequent control mechanism.

(iii) In making a demonstration that a pollutant is not present, the Industrial User must provide data from at least one sampling of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes. The request for a monitoring waiver must be signed in accordance with paragraph (1) of this section and include the certification statement in section 403.6(b)(2)(ii). Non-detectable sample results may only be used as a demonstration that a pollutant is not present if the EPA approved method from 40 CFR part 136 with the lowest minimum detection level for that pollutant was used in the analysis, or at the lowest Practical Quantitation Limit specified by the Department, whichever is lower.

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(iv) Any grant of the monitoring waiver by the Control Authority must be included as a condition in the User's control mechanism. The reasons supporting the waiver and any information submitted by the User in its request for the waiver must be maintained by the Control Authority for 3 years after expiration of the waiver.

(v) Upon approval of the monitoring waiver and revision of the User's control mechanism by the Control Authority, the Industrial User must certify on each report with the statement below, that there has been no increase in the pollutant in its wastestream due to activities of the Industrial User:

Based on my inquiry of the person or persons directly responsible for managing compliance with the Pretreatment Standard for 40 CFR \_\_\_\_\_ [specify applicable National Pretreatment Standard part(s)], I certify that, to the best of my knowledge and belief, there has been no increase in the level of \_\_\_\_\_ [list pollutant(s)] in the waste streams due to the activities at the facility since filing of the last periodic report under S.C. R.61-9.403.12(e)(1).

(vi) In the event that a waived pollutant is found to be present or is expected to be present based on changes that occur in the User's operations, the User must immediately: Comply with the monitoring requirements of paragraph (e)(1) of this section or other more frequent monitoring requirements imposed by the Control Authority; and notify the Control Authority and the Department.

(vii) This provision does not supersede certification processes and requirements established in categorical Pretreatment Standards, except as otherwise specified in the categorical Pretreatment Standard.

### **Renumber existing item 403.12(e)(3) to (e)(4) and add new item (e)(3) to read as follows:**

(3) The Control Authority may reduce the requirement in paragraph (e)(1) of this section to a requirement to report no less frequently than once a year, unless required more frequently in the Pretreatment Standard or by the Department, where the Industrial User meets all of the following conditions:

(i) The Industrial User's total categorical wastewater flow does not exceed any of the following:

(A) 0.01 percent of the design dry weather hydraulic capacity of the POTW, or 5,000 gallons per day, whichever is smaller, as measured by a continuous effluent flow monitoring device unless the Industrial User discharges in batches;

(B) 0.01 percent of the design dry weather organic treatment capacity of the POTW; and

(C) 0.01 percent of the maximum allowable headworks loading for any pollutant regulated by the applicable categorical Pretreatment Standard for which approved local limits were developed by a POTW in accordance with section 403.5(c) and paragraph (d) of this section;

(ii) The Industrial User has not been in significant noncompliance, as defined in section 403.8(f)(2)(vii), for any time in the past two years;

(iii) The Industrial User does not have daily flow rates, production levels, or pollutant levels that vary so significantly that decreasing the reporting requirement for this Industrial User would result in data that are not representative of conditions occurring during the reporting period pursuant to paragraph (g)(3) of this section;



(iv) The Industrial User must notify the Control Authority immediately of any changes at its facility causing it to no longer meet conditions of paragraphs (e)(3)(i) or (ii) of this section. Upon notification, the Industrial User must immediately begin complying with the minimum reporting in paragraph (e)(1) of this section; and

(v) The Control Authority must retain documentation to support the Control Authority's determination that a specific Industrial User qualifies for reduced reporting requirements under paragraph (e)(3) of this section for a period of 3 years after the expiration of the term of the control mechanism.

(4) For Industrial Users subject to equivalent mass or concentration limits established by the Control Authority in accordance with the procedures in section 403.6(d), the report required by paragraph (e)(1) shall contain a reasonable measure of the User's long term production rate. For all other Industrial Users subject to categorical Pretreatment Standards expressed only in terms of allowable pollutant discharge per unit of production (or other measure of operation), the report required by paragraph (e)(1) shall include the User's actual average production rate for the reporting period.

**Revise existing items 403.12(g)(1), (2), and (3) to read as follows:**

(1) Except in the case of Non-Significant Categorical Users, the reports required in paragraphs (b), (d), (e), and (h) of this section shall contain the results of sampling and analysis of the Discharge, including the flow and the nature and concentration, or production and mass where requested by the Control Authority, of pollutants contained therein which are limited by the applicable Pretreatment Standards. This sampling and analysis may be performed by the Control Authority in lieu of the Industrial User. Where the POTW performs the required sampling and analysis in lieu of the Industrial User, the User will not be required to submit the compliance certification required under section 403.12(b)(6) and section 403.12(d). In addition, where the POTW itself collects all the information required for the report, including flow data, the Industrial User will not be required to submit the report.

(2) If sampling performed by an Industrial User indicates a violation, the User shall notify the Control Authority within 24 hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Control Authority within 30 days after becoming aware of the violation. Where the Control Authority has performed the sampling and analysis in lieu of the Industrial User, the Control Authority must perform the repeat sampling and analysis unless it notifies the User of the violation and requires the User to perform the repeat analysis. Resampling is not required if:

(i) The Control Authority performs sampling at the Industrial User at a frequency of at least once per month; or

(ii) The Control Authority performs sampling at the User between the time when the initial sampling was conducted and the time when the User or the Control Authority receives the results of this sampling.

(3) The reports required in paragraphs (b), (d), (e), and (h) of this section must be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which data are representative of conditions occurring during the reporting period. The Control Authority shall require that frequency of monitoring necessary to assess and assure compliance by Industrial Users with applicable Pretreatment Standards and Requirements. Grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds. For all other pollutants, 24-hour composite samples must be obtained through flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Control Authority. Where time-proportional composite sampling or grab sampling is authorized by the Control Authority with approval by the Department, the samples must be representative of the discharge and the decision to allow the alternative sampling must be

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documented in the Industrial User file for that facility or facilities. Using protocols (including appropriate preservation) specified in 40 CFR part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: For cyanide, total phenols, and sulfides, the samples may be composited in the laboratory or in the field; for volatile organics and oil & grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the Control Authority, as appropriate.

**Renumber existing items 403.12(g)(4) and (5) to (5) and (6), add new item (4), and revise renumbered item (6) to read as follows:**

(4) For sampling required in support of baseline monitoring and 90-day compliance reports required in paragraphs (b) and (d) of this section, a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the Control Authority may with approval by the Department authorize a lower minimum. For the reports required by paragraphs (e) and (h) of this section, the Control Authority shall require the number of grab samples necessary to assess and assure compliance by Industrial Users with Applicable Pretreatment Standards and Requirements.

(5) All analyses shall be performed in accordance with procedures established by the Administrator pursuant to section 304(h) of CWA contained in 40 CFR Part 136 and amendments thereto or with any other test procedures approved by the Administrator. (See, section 136.4 and section 136.5) Sampling shall be performed in accordance with the techniques approved by the Department. Where 40 CFR Part 136 does not include sampling or analytical techniques for the pollutants in question, or where the Administrator determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed using validated analytical methods or any other sampling and analytical procedures, including procedures suggested by the POTW or other parties, approved by the administrator.

(6) If an Industrial User subject to the reporting requirement in paragraph (e) or (h) of this section monitors any regulated pollutant at the appropriate sampling location more frequently than required by the Control Authority, using the procedures prescribed in paragraph (g)(5) of this section, the results of this monitoring shall be included in the report.

**Revise item 403.12(h) to read as follows:**

(h) Reporting requirements for Industrial Users not subject to categorical Pretreatment Standards. The Control Authority must require appropriate reporting from those Industrial Users with Discharges that are not subject to categorical Pretreatment Standards. Significant Non-categorical Industrial Users must submit to the Control Authority at least once every six months (on dates specified by the Control Authority) a description of the nature, concentration, and flow of the pollutants required to be reported by the Control Authority. In cases where a local limit requires compliance with a Best Management Practice or pollution prevention alternative, the User must submit documentation required by the Control Authority to determine the compliance status of the User. These reports must be based on sampling and analysis performed in the period covered by the report, and in accordance with the techniques described in part 136 and amendments thereto. This sampling and analysis may be performed by the Control Authority in lieu of the significant non-categorical Industrial User.

**Revise item 403.12(i)(1) to read as follows:**

(1) An updated list of the POTW's Industrial Users, including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The POTW shall provide a brief explanation of each deletion. This list shall identify which Industrial Users are subject to categorical Pretreatment Standards and specify which Standards are applicable to each Industrial User. The list shall

indicate which Industrial Users are subject to local standards that are more stringent than the categorical Pretreatment Standards. The POTW shall also list the Industrial Users that are subject only to local Requirements. The list must also identify Industrial Users subject to categorical Pretreatment Standards that are subject to reduced reporting requirements under paragraph (e)(3), and identify which Industrial Users are Non-Significant Categorical Industrial Users;

**Revise item 403.12(j) to read as follows:**

(j) Notification of changed Discharge. All Industrial Users shall promptly notify the Control Authority (and the POTW if the POTW is not the Control Authority) in advance of any substantial change in the volume or character of pollutants in their discharge, including the listed or characteristic hazardous wastes for which the Industrial User has submitted initial notification under section 403.12(p).

**Revise items 403.12(l)(1)(ii) and (2) to read as follows:**

(ii) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) By a general partner or proprietor if the Industrial User submitting the reports required by paragraphs (b), (d), and (e) of this section is a partnership or sole proprietorship, respectively.

**Revise item 403.12(m) to read as follows:**

(m) Signatory requirements for POTW reports. Reports submitted to the Department by the POTW in accordance with paragraph (i) of this section must be signed by a principal executive officer, ranking elected official, or other duly authorized employee. The duly authorized employee must be an individual or position having responsibility for the overall operation of the facility or the Pretreatment Program. This authorization must be made in writing by the principal executive officer or ranking elected official, and submitted to the Department prior to or together with the report being submitted.

**Revise the introductory language of item 403.12(o)(1) to read as follows, items (1)(i) and following remaining the same:**

(1) Any Industrial User and POTW subject to the reporting requirements established in this section shall maintain records of all information resulting from any monitoring activities required by this section, including documentation associated with Best Management Practices. Such records shall include for all samples:

**Revise item 403.12(o)(2) to read as follows:**

(2) Any Industrial User or POTW subject to the reporting requirements established in this section (including documentation associated with Best Management Practices) shall be required to retain for a minimum of 3 years any records of monitoring activities and results (whether or not such monitoring activities are required by this section) and shall make such records available for inspection and copying by the Department and the Regional Administrator (and POTW in the case of an Industrial User). This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants

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by the Industrial User or the operation of the POTW Pretreatment Program or when requested by the Department or the Regional Administrator.

### **Add new item 403.12(q) to read as follows:**

(q) Annual certification by Non-Significant Categorical Industrial Users. A facility determined to be a Non-Significant Categorical Industrial User pursuant to section 403.3(o)(2) must annually submit the following certification statement, signed in accordance with the signatory requirements in paragraph (l) of this section. This certification must accompany any alternative report required by the Control Authority:

Based on my inquiry of the person or persons directly responsible for managing compliance with the categorical Pretreatment Standards under 40 CFR \_\_\_\_ I certify that, to the best of my knowledge and belief that during the period from \_\_\_\_\_, \_\_\_\_ to \_\_\_\_\_, \_\_\_\_ [month, day, year]:

(a) The facility described as \_\_\_\_\_ [facility name] met the definition of a non-significant categorical Industrial User as described in section 403.3(o)(2); (b) the facility complied with all applicable Pretreatment Standards and requirements during this reporting period; and (c) the facility never discharged more than a total of 100 gallons of categorical wastewater on any given day during this reporting period. This compliance certification is based upon the following information:

\_\_\_\_\_

\_\_\_\_\_

### **Revise item 403.13(m)(2) to read as follows:**

(2) If the Regional Administrator declines to hold a hearing and the Regional Administrator affirms the findings of the Administrator's delegate, the requester may submit a petition for a hearing to the Environmental Appeals Board (which is described in section 1.25 of 40 CFR Part 1.25) within 30 days of the Regional Administrator's decision.

### **Revise the title of section 403.15 to read as follows:**

403.15 Net/gross calculation.

### **Revise item 403.15(a) to read as follows:**

(a) Application. Categorical Pretreatment Standards may be adjusted to reflect the presence of pollutants in the Industrial User's intake water in accordance with this section. Any Industrial User wishing to obtain credit for intake pollutants must make application to the Control Authority. Upon request of the Industrial User, the applicable Standard will be calculated on a "net" basis (i.e., adjusted to reflect credit for pollutants in the intake water) if the requirements of paragraph (b) of this section are met.

### **Revise item 403.15(b)(1) to read as follows:**

(1) Either:

(i) The applicable categorical Pretreatment Standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis or

(ii) The Industrial User demonstrates that the control system it proposes or uses to meet applicable categorical Pretreatment Standards would, if properly installed and operated, meet the Standards in the absence of pollutants in the intake waters.

**Revise item 403.15(b)(3) to read as follows:**

(3) Credit shall be granted only to the extent necessary to meet the applicable categorical Pretreatment Standard(s), up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with Standard(s) adjusted under this section.

**Delete item 403.15(c).****In Appendix C of Part 403, revise the list of categories to read as follows:**

Aluminum Forming  
 Asbestos Manufacturing  
 Battery Manufacturing  
 Builder's Paper  
 Carbon Black  
 Cement Manufacturing  
 Centralized Waste Treatment  
 Coil Coating  
 Copper Forming  
 Dairy Products Processing  
 Electrical and Electronic Components  
 Electroplating  
 Feedlots  
 Ferroalloy Manufacturing  
 Fertilizer Manufacturing  
 Fruits and Vegetables Processing Manufacturing  
 Glass Manufacturing  
 Grain Mills  
 Ink Formulating  
 Inorganic Chemicals  
 Iron and Steel Manufacturing  
 Leather Tanning and Finishing  
 Meat Processing  
 Metal Finishing  
 Metal Molding and Casting  
 Nonferrous Metals Forming and Metal Powders  
 Nonferrous Metals Manufacturing  
 Oil and Gas Extraction  
 Organic Chemicals, Plastics, and Synthetic Fibers  
 Paint Formulating  
 Paving and Roofing (Tars and Asphalt)  
 Pesticides  
 Petroleum Refining  
 Pharmaceuticals  
 Phosphate Manufacturing  
 Plastics Molding and Forming  
 Porcelain Enameling  
 Pulp, Paper, and Paperboard  
 Rubber Manufacturing  
 Seafood Processing  
 Soaps and Detergents Manufacturing  
 Steam Electric  
 Sugar Processing

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Textile Mills  
 Timber Products Processing  
 Transportation Equipment Cleaning  
 Waste Combustors

**In Appendix G of Part 403, in “Table I. Regulated Pollutants in Part 503 Eligible for a Removal Credit”, revise the introductory language of Note 1 to read as follows, the listing of organic pollutants remaining the same:**

1. The following organic pollutants are eligible for a removal credit if the requirements for total hydrocarbons (or carbon monoxide) in subpart E in R.61-9.503 and other requirements in R.61-62, Air Pollution Control Regulations and Standards, are met when sewage sludge is fired in a sewage sludge incinerator:

**In Appendix G of Part 403, in Table II, revise the heading of the table to read as follows, the listing of pollutants and data remaining the same:**

<u>Pollutants</u>	<b>Use or Disposal Practice</b>			
	<u>LA</u>	<u>Surface Disposal</u>		<u>I</u>
		<u>Unlined<sup>1</sup></u>	<u>Lined<sup>2</sup></u>	

**Revise items 503.4(a), (b), and (c) to read as follows:**

(a) Disposal of sewage sludge in a municipal solid waste landfill unit, as defined in 40 CFR 258.2 and R.61-107, that complies with the requirements in 40 CFR Part 258 and R.61-107 constitutes compliance with section 405(d) of the CWA. Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit shall ensure that the sewage sludge meets the requirements in 40 CFR Part 258 and R.61-107 concerning the quality of materials disposed in a municipal solid waste landfill unit.

(b) The disposal of sewage sludge involving the composting or co-composting of the sewage sludge with yard trash, land-clearing debris, or a combination of yard trash and land clearing debris shall comply with the requirements established in R.61-107. The submission and information requirements shall be determined by the Department.

(c) The disposal of sewage sludge utilizing an innovative and experimental solid waste management technology or process shall comply with the requirements addressed in R.61-107.

**Revise item 503.12(m) to read as follows:**

(m) The Department may establish permit conditions to require that sludge application remain consistent with the lime and fertilizer requirements for the cover, feed, food, and fiber crops based on published lime and fertilizer recommendations (such as “Nutrient Management for South Carolina”, Cooperative Extension Service, Clemson University, EC 476).

**Revise the heading of Table 4 of section 503.32 to read as follows, the column headings and data to remain the same:**

TABLE 4 OF SECTION 503.32 - If the sewage sludge is less than 7% solids  
 and the temperature of the sewage sludge is 50 degrees Celsius or higher;  
 and the time period is 30 minutes or longer.

**Revise the introductory language of item 503.50(a) to read as follows, items (a)(1) and following remaining the same:**

(a) The permittee shall prepare an odor abatement plan for the sewage sludge treatment sites, any sludge storage or lagoon areas, and land application or surface disposal sites. Permittees that land-apply sludge must prepare the plan within 180 days of the effective date of this regulation (effective date of June 26, 2003). Permittees that have facilities described above that require plans have one (1) year from the June 26, 2003 effective date to prepare the plan. Odor abatement plans must be submitted for new projects with the submission of permit applications. The plan must include the following topics:

**Revise items 504.4(a), (b), and (c) to read as follows:**

(a) Disposal of industrial sludge in a municipal solid waste landfill unit permitted under R.61-107 constitutes compliance with this regulation. Any person who prepares industrial sludge that is disposed in a municipal solid waste landfill unit shall ensure that the industrial sludge meets the requirements in R.61-107 concerning the quality of materials disposed in a municipal solid waste landfill unit. Disposal of industrial sludge in an industrial solid waste landfill unit complying with State Solid Waste regulations and requirements in permits constitutes compliance with this regulation.

(b) The disposal of industrial sludge involving the composting or co-composting of the industrial sludge with yard trash, land-clearing debris, or a combination of yard trash and land clearing debris shall comply with the requirements established by the Department in R.61-107. The submission and information requirements shall be determined by the Department.

(c) The disposal of industrial sludge utilizing an innovative and experimental solid waste management technology or process shall be permitted under R.61-107.

**Revise item 504.12(m) to read as follows:**

(m) The Department may establish permit conditions to require that the agronomic rate of sludge application remain consistent with the lime and fertilizer requirements for the cover, feed, food, and fiber crops based on published lime and fertilizer recommendations (such as “Nutrient Management for South Carolina”, Cooperative Extension Service, Clemson University, EC 476).

**Revise item 504.22(a)(2) to read as follows:**

(2) For any facility, except a landfill or a sludge only monofill, meeting the definition of a land disposal site on the date of this regulation, either sufficient amount of sludge must be removed from the facility in order to change the facility's classification, or a report detailing final closure must be submitted to the Bureau of Water, Department of Health and Environmental Control or an application for permitting under Solid Waste Regulations must be submitted to the Bureau of Land and Waste Management, Department of Health and Environmental Control. Either the sludge removal must be accomplished within one year after the date of this regulation or the closeout report or permit application must be submitted to the Department within one (1) year after the date of this regulation. If closure is the selected option, the plan must provide a schedule showing how the closure will be accomplished. The land disposal site must be either closed under Regulation 61-82 or permitted by Solid Waste Management Regulations by June 28, 2001. Facilities will be in compliance with this section if a timely and complete application for closure or permit is made and through no fault of the applicant a closure approval or permit has not been issued.

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**Revise the introductory language of item 504.50(a) to read as follows, items (a)(1) and following remaining the same:**

(a) The permittee shall prepare an odor abatement plan for the industrial sludge treatment sites, any sludge storage or lagoon areas, and land application or surface disposal sites. Permittees that land-apply sludge must prepare the plan within 180 days of the effective date of this regulation (effective date of June 26, 2003). Permittees that have facilities described above that require plans have one (1) year from the June 26, 2003 effective date to prepare the plan. Odor abatement plans must be submitted for new projects with the submission of permit applications. The plan must include the following topics:

**Revise item 505.41(p)(5) to read as follows:**

(5) Basins, storage ponds, or constructed impoundments (except for systems designed to operate in this manner, e.g., infiltration basins) which are in use may be required to be monitored with groundwater monitoring wells as approved by the Department. The basin, storage pond or constructed impoundment may be considered unlined if the leakage rate is greater than 500 gallons per day per acre, or information available would indicate to the Department that specific hydrological conditions would require groundwater monitoring. The Department may consider the level of treatment, or the type of wastewater (e.g., influent characteristics) in the determination of whether an unlined basin, storage pond or other constructed impoundments must have groundwater monitoring. Storage facilities for reclaimed water (as described in section 505.45) will not require groundwater monitoring unless specifically required by the Department.

**Revise item 505.45(i)(9)(i) to read as follows:**

(i) Land application systems. For all POTW and for those other systems including in the influent a significant amount of, or having a significant effect from, domestic sewage, at least as stringent as 200/100 ml monthly average and 400/100 ml daily maximum, or the bacteriological standard from the nearest surface water body as defined in R.61-68 (if this surface water is classified with a more restrictive standard), except where it can be shown that neither storm water nor wastewater will run off the disposal site to a waterway and that the isolation of the disposal site will eliminate exposure of persons to pathogens. A significant amount or effect is related to the effluent having a reasonable potential to violate the above-stated bacteriological requirement. For all other discharges, the Department may use the previously identified limits, or establish other fecal coliform limitations to reflect the specific discharge and site conditions. Domestic sewage is defined at R.61-9.503.9.

### **Fiscal Impact Statement:**

There is expected to be no significant cost from these amendments to industrial users, that is, pretreaters, of publicly owned treatment works (POTW). These amendments allow reduced monitoring, both in the number of parameters monitored and in the frequency of monitoring. This may only occur in appropriate circumstances, which are defined in the Text of these amendments above and the Statement of Need and Reasonableness below.

Minimal additional costs to POTW and the Department will accrue from the time involved in review of requests by industrial users for reduced monitoring.

### **Statement of Need and Reasonableness:**

This statement of need and reasonableness and rationale has been developed based on staff analysis pursuant to S.C. Code Sections 1-23-110(A)(3)(h) and 115(C)(1) - (3) and (9) - (11):



DESCRIPTION OF REGULATION: S.C Regulation 61-9, Water Pollution Control Permits.

Purpose: These amendments of Regulation 61-9 have three purposes: (1): Incorporate into South Carolina regulations changes to United States Environmental Protection Agency regulations promulgated in the Federal Register October 14, 2005, at 70 Federal Register 60,134, some of which the Department is not required to adopt. (2) Include requirements of 2006 S.C. Act No 387 related to appeals of permits and orders of the Department. (3) Make miscellaneous corrections to various parts of Regulation 61-9.

Legal Authority: This change to state law is authorized by S.C. Code Title 1, Chapter 23; Title 44, Chapter 1; and Title 48, Chapter 1; the Clean Water Act, 33 U.S.C. 1251, et seq.; and United States Environmental Protection Agency regulations promulgated in the Federal Register (FR) of October 14, 2005.

Plan for Implementation: These amendments will make changes to and be incorporated into R.61-9 upon approval of the Board of Health and Environmental Control and the General Assembly and publication in the State Register. The additional effort required by the Department will consist mainly of reviews of requests by industrial users of publicly owned treatment works (POTW) for waivers of monitoring and for less frequent monitoring. The additional work required by these amendments will total about five employee-weeks of effort during the first year. As budget constraints appear to prohibit addition of positions, the additional work will be integrated with present operations.

DETERMINATION OF NEED AND REASONABLENESS FOR THE REGULATION AND EXPECTED BENEFIT:

(1) Incorporate into South Carolina regulations changes to United States Environmental Protection Agency regulations promulgated in the Federal Register October 14, 2005, at 70 Federal Register 60,134, some of which the Department is not required to adopt.

The October 14, 2005 Federal Register modified regulations for industries which discharge to publicly owned treatment works (POTW), that is, pretreaters, and for the POTW which receive such waste. These amendments to the regulation allowed waivers from some monitoring and reduction of some reporting in a manner similar to that for such industries which discharge directly to waters of the State under a National Pollutant discharge Elimination System (NPDES) permit. The South Carolina amendments which incorporate the Federal changes require S.C. DHEC approval, not required by the Federal regulation, of some the waivers and reductions in monitoring.

The Department met with representatives of pretreaters and POTW in July 2007, prior to the submittal of the proposed amendments to the regulation to the Board for approval to publish a Notice of Proposed Regulation (NPR) and to hold a Staff Informational Forum. No written comments pertinent to the issues of the Notices of Drafting were received. Comments received in the meetings were considered in drafting the amendments.

Subsequent to Board approval to publish the proposed regulations in the State Register, staff contacted the following organizations concerning the notice and solicited input: S.C. American Waterworks Association; S.C. Chamber of Commerce; S.C. Coastal Conservation League; S.C. Environmental Law Project; S.C. Pretreatment Consortium; S.C. Sierra Club; S.C. Water Environment Association; Southern Environmental Law Center; and the Strom Thurmond Institute. No written comments were received from these groups.

The Staff Informational Forum was held on October 31, 2007 with no member of the public attending or submitting comments. However, additional meetings were held with representatives of pretreaters and POTW, again with no stated objections or written comments.

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Comments were received December 12, 2007, from U.S. Environmental Protection Agency, Region 4, concerning the amendments stated in the Notice of Proposed Regulation published in the State Register September 28, 2007. The comments recommended changes which were largely clerical, and recommendations were discussed during the public hearing conducted by the Department of Health and Environmental Control on December 13. Department staff recommended declining to make some of the changes and accepting the others, with the concurrence of the Board.

These amendments are needed and reasonable because they reduce unnecessary monitoring and reporting requirements on permittees while still maintaining protection of the environment and public health.

(2) Changes necessary to update Regulation 61-9 to comply with changes in state law pursuant to 2006 S.C. Act No 387 related to appeals of permits and orders.

References in the regulation are revised to comply with the South Carolina act. Provisions were also relocated in the regulation to parallel the location of appeals procedures in the Federal regulation.

This amendment is needed and reasonable because it carries out the requirements of South Carolina Act 387 (2006).

(3) Miscellaneous changes to address clerical corrections, renumbering, relocation, or revision of the existing regulation to reflect the changes resulting from the appropriate revised requirements, as follows.

These amendments will make the regulation clearer.

### UNCERTAINTIES OF ESTIMATES:

While none of the costs can be specifically defined, as stated above the various amendments will either have no cost or will reduce costs to permittees.

The cost to the Department for review of requests for waivers and reduction of monitoring is quite uncertain. Staff cannot determine how frequently permittees will choose to prepare and submit requests. However, as monitoring is a significant cost, numerous waiver requests seem likely.

### EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH:

There is not expected to be any effect on the environment or public health from the changes resulting from these amendments. Rather, the amendments are expected to contribute to improved efficiency in regulating the pretreatment of wastewater discharged by industrial users into publicly owned treatment works (POTW).

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

There is not expected to be any adverse effect on the environment or public health if these amendments are not approved. However, unnecessary costs for monitoring and reporting would continue to accrue for both industrial users and POTW if these amendments are not approved.

### Statement of Rationale:

Those sections of these amendments to South Carolina Regulation 61-9, Water Pollution Control Permits, relating to operational matters are taken directly from the United States Environmental Protection Agency regulation promulgated in the Federal Register October 14, 2005 at 70 FR 60134. These matters

relate to industries which discharge industrial wastewater to publicly owned treatment works (POTW) and to the POTW which receive such wastewater and regulate the industrial discharges.

Certain parts of the Federal regulation are more stringent than the present South Carolina regulation, and all of these are adopted in this amendment. Adoption of these is required by Federal regulation for South Carolina to maintain a discharge permit (NPDES) program in lieu of United States Environmental Protection Agency permitting.

Others of the Federal changes are less stringent than South Carolina regulation, and South Carolina is not required to adopt these. However, these changes make complying with pretreatment regulations more efficient, and the Department has chosen to also adopt these changes. The Department has revised these changes in some cases to allow review by the Department of requests by permittees for reduction of monitoring or reporting.

The remaining changes are administrative and consist of two categories of changes:

1. Addition of references to revised requirements for appeals of permits and orders of the Department. These revisions were stated in South Carolina Act 387 of 2006; and
2. Clerical corrections to the existing regulation.

Document No. 3143  
**COMMISSION ON HIGHER EDUCATION**  
 CHAPTER 62  
 Statutory Authority: 1976 Code Section 59-111-330

62-1100. Free Tuition for Residents Sixty Years of Age

**Synopsis:**

The General Assembly passed the “Free Tuition for Residents Sixty Years of Age” (Section 59-111-310) that authorized public colleges or universities to permit legal residents of South Carolina who have attained the age of sixty to attend classes for credit or noncredit on a space available basis without the required payment of tuition. Section 59-111-330 requires the Commission on Higher Education to promulgate rules and regulations necessary for implementation of the provisions of this article.

The proposed regulation will provide definitions institutions may use to ensure consistent application of the provisions of this article and will establish guidelines for institutional processing of inquiries and appeals.

Legislative review of this proposal will be required.

**Instructions:**

Add new regulation 62-1100 to South Carolina Code of Regulations

**Text:**

62-1100. Authority.

Pursuant to the authority granted to the Commission on Higher Education by the 1976 Code Section 59-111-330, regulations governing the administration of the provision for free tuition for residents sixty years of age are hereby established.

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### 62-1110. Eligibility.

State-supported colleges and universities are authorized to permit legal residents of South Carolina who have attained the age of sixty to attend classes for credit or noncredit purposes on a space available basis without the required payment of tuition if these persons meet admission and other standards deemed appropriate by the college or university and if these persons do not receive compensation as full-time employees.

### 62-1120. Authorization.

Institutions are authorized but not required to waive the tuition portion of the cost of a course in which eligible residents enroll. The costs of any fees, charges, and/or textbooks normally associated with the course remain in effect and must be borne by the participant.

### 62-1130. Program Definitions.

A. "Classes for credit or non-credit" is defined as regularly scheduled classes, including those offered through distance education, in which an adequate number of students not eligible for the over sixty waiver are enrolled. An adequate number of students, for the purpose of this provision, shall be consistent with institutional policy.

B. "Full-time employees" is defined as employment that consists of at least thirty seven and one half hours a week on a single job in a full time status. However, a person who works less than thirty seven and one half hours a week but receives or is entitled to receive full time employee benefits shall be considered to be employed full time. A person who meets the eligibility requirements of the Americans with Disabilities Act must present acceptable evidence that they do not satisfy their prescribed employment specifications in order to qualify for this waiver.

C. "Legal residents of South Carolina" is defined as those persons who would otherwise be eligible to pay in-state tuition and fees per Regulation 62-600 – Determination of Rates of Tuition and Fees.

D. "Persons meeting admission and other standards" is defined as persons who have evidence via documentation or evaluation normally accepted by the institutions which show that all course prerequisites have been satisfied.

E. "Persons who have attained the age of sixty" is defined as persons who have reached the age of sixty no later than the first day of class of the term for which the waiver is sought.

F. "Space available basis" is defined as the upper limit of class capacity, both physical and academic, as defined by institutional policy.

G. "State supported college or university" is defined as (1) those institutions enumerated in Section 59-107-10 and the branches and extensions of those institutions; and (2) those institutions under the jurisdiction of the State Board for Technical and Comprehensive Education.

H. "Tuition" is defined as the amount charged for registering for a credit hour of instruction and shall not be construed to include standard fees, charges, or costs of textbooks.

### 62-1140. Proof of Eligibility.

State supported colleges or universities which offer this waiver may require such proof as deemed necessary to ensure that those applying are eligible for the benefit requested.

### 62.1150. Inquiries and Appeals.

Each institution offering this waiver shall publish a policy governing the administration of this provision, shall ensure that the policy is accessible to all interested parties, and shall make the policy available upon request. The policy shall include an appeals process to accommodate persons wishing to appeal determinations made. Neither the primary official nor appellate official(s) may waive the provisions of the Statute or regulation governing free tuition for residents sixty years of age.

62-1160. Penalties for Misrepresenting Eligibility.

All persons receiving benefits under this provision shall be responsible for notifying the institution of any changes that would affect such eligibility. Any applicant who willfully misrepresents his eligibility for the tuition waiver, or any person who knowingly aids or abets such applicant in misrepresenting his eligibility for such benefits, shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined not more than one hundred dollars or imprisoned for not more than thirty days.

62-1170. Institutional Eligibility for State Support.

Persons attending classes under the provisions of this article, on a space available basis without payment of tuition, shall neither be counted in the computation of enrollment for funding purposes nor considered on a formula basis for the issuance of capital improvement bonds.

**Fiscal Impact Statement:**

The Commission on Higher Education estimates the costs incurred by the State and its political subdivisions in complying with the proposed regulation will be approximately \$0.00.

**Statement of Rationale:**

This regulation provides definitions institutions may use to ensure consistent application of the provisions of this article and establishes guidelines for institutional processing of inquiries and appeals.

## 358 FINAL REGULATIONS

Document No. 3135  
**DEPARTMENT OF LABOR, LICENSING AND REGULATION**  
**COMMISSIONERS OF PILOTAGE**  
CHAPTER 136  
Statutory Authority: 1976 Code Section 54-15-140

136-001 through 136-799. Chapter Revision

### **Synopsis:**

The Department of Labor, Licensing and Regulation, Commissioners of Pilotage, is revising existing regulations by amending the regulations in their entirety (136-001 through 136-799) and updating the regulations in conformance with 2006 Act 237.

### **Instructions:**

Replace 136-001 through 136-799 as indicated below.

### **Text:**

#### ARTICLE 1 LOWER COASTAL AREA

136-001. Purpose.

A. The purpose of these regulations is to establish standards for the promotion and continuance of a centralized, coordinated system of pilotage that will assure the safe and efficient movement of ocean-going shipping in to, out of and within the seaports of the State of South Carolina.

B. Safety shall be the primary objective of pilotage and shall focus upon the safety of vessels in transit, of vessels moored, of bridges and other waterfront structures, of channels and other navigable waterways, and protection of the marine environment.

C. Pilotage standards shall pursue the major objective of safety and the secondary objective of efficient movement by addressing, but not be limited to, each of the following aspects:

- (1) Selection, training and qualification of pilots,
- (2) Licensure and registration of pilots,
- (3) Reports of accidents, risks, and other matters affecting vessel safety,
- (4) Relationship to federal pilotage,
- (5) Pilot logistical support systems,
- (6) Vessel movement restrictions,
- (7) Docking and undocking,
- (8) Administration.

136-003. Definitions.

A. "Apprentice" is defined to mean an individual approved and certified by the Commissioners who is undergoing an approved pilot training and qualification program.

B. "Bar" is defined to mean the entrance to any port at such place in the Atlantic Ocean where the U. S. Army Corps of Engineers is authorized to commence harbor maintenance.

C. "Branch" is defined to mean a category of pilot license denoting the absence of restrictions, or the level of restriction, placed upon the holder of said license.

D. "Coast Guard" is defined to mean the United States Coast Guard.

E. "Commissioners" is defined to mean the Commissioners of Pilotage for the Lower Coastal area.

- F. "Draft" is defined to mean the deepest vertical distance required by any vessel to float measured from the surface of the water to a depth equal to the deepest portion of a vessel's hull or appurtenances.
- G. "Examiner" is defined to mean a member of a Board of Examiners convened by the Commissioners to examine apprentices for issuance of pilot licenses, and to examine pilots holding restricted pilot licenses for the next higher license.
- H. "Federal Pilot" is defined to mean any person licensed under the provisions of 46 USC 7101-7114, and entitled to serve under the authority of 46 USC 8502.
- I. "Foreign Flag" is defined to mean a vessel registered in a country other than the United States.
- J. "Full Branch" is defined to mean a license with no restrictions.
- K. "Gross Tons" is defined to mean the gross registered tonnage of any vessel as measured under the 1969 International Tonnage Convention.
- L. "Harbor" is defined to mean the waterways inshore of the bar, within a port, on which commerce may be carried.
- M. "License" is defined to mean a document issued by the Commissioners to a pilot authorizing that individual to serve as a State pilot on board such vessels requiring same.
- N. "Pilot" is defined to mean an individual licensed by the Commissioners as a pilot for the waters defined by 46CFR 7.65, 46 CFR7.70 and 46 CFR 7.75.
- O. "Pilot Waters" is defined to mean those waters of the bar and within the harbor on which pilots are required.
- P. "Port" is defined to mean the geographic area, defined by political boundaries, surrounding and including the harbor and bar.
- Q. "Public Vessel" is defined to mean a vessel meeting the definition of contained in 46 USC 2101(24).
- R. "Qualified Docking Master" is defined to mean a ship docking specialist certified as such by the Charleston Docking Pilots or the Charleston Docking Masters.
- S. "Seagoing Vessel" is defined to mean any vessel, or combination of tug and tows, that measure 200 or more gross tons, and/or draw 8 or more feet.
- T. "Short Branch" is defined to mean a pilot license that is restricted to service on vessels of certain size and draft limitations.
- U. "State Pilot" is defined to mean a pilot licensed by the Commissioners.
- V. "Vessel" is defined to mean, generally, every contrivance of watercraft, including craft self propelled by machinery and/or sail, and non-self propelled craft being towed or pushed by another craft.

136-005. Area of Jurisdiction.

The Commissioners for the Lower Coastal Area have jurisdiction for the pilot waters between Cape Romain, S.C. and the South Carolina side of the Savannah River.

136-007. Policies and Procedures Manual.

The Commissioners shall publish and maintain a current Policies and Procedures Manual (PPM). The PPM shall provide guidance regarding the administration of matters coming before the Commissioners.

136-010. Requirement for Licensure.

No person may be licensed as a pilot without first having successfully completed the required three-year program of apprentice training and qualification. This is applicable to temporary and emergency licenses as well as to regular full branch and short branch licenses.

136-011. Apprentice Training and Qualification Program.

A. The apprentice training and qualification program shall include the satisfactory completion of an apprentice training course approved by the Commissioners.

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B. In addition to satisfactory completion of the apprentice training course, every apprentice shall become qualified to perform boat crew duties on board every class of pilot vessel and to stand communications watches at the pilot office. The apprentice training and qualification program shall consist of both the approved Apprentice Training Course and the three-year term of apprentice training.

### 136-012. Apprentice Selection Process.

A. Applicants for apprenticeship shall submit applications to the Commissioners on application forms provided by the Commissioners. A non-refundable application fee shall be submitted with each application.

B. Upon a determination of eligibility by the Commissioners, copies of the complete applications of eligible applicants will be forwarded to the pilots.

C. At such times as vacancies may be forecast or occur within the register of pilots, the Commissioners shall certificate from among the eligible applicants the best qualified individual or individuals for apprenticeship. Selection shall be in accordance with selection criteria procedures, based upon numerical ranking, promulgated by the Commissioners. No agency shall require the selection of more apprentices than needed to fill projected vacancies.

D. Numerical ranking shall be based upon a 100 point system, with 25 points for each of the following categories:

(1) Academic. Each High School Graduate shall receive 5 points. In addition, each applicant's cumulative grade point average, on a 4.0 scale, shall be multiplied by a factor of 5 for persons with a baccalaureate, or higher, degree and by a factor of 2.5 for persons with an associate or equivalent, two-year degree.

(2) Previous maritime experience. The Commissioners shall award points to applicants pursuant to subpart 136-015.

(3) Interview. Every applicant shall be interviewed by the Commissioners. Each person interviewed shall be assigned from 0 to 25 points based upon objective scoring guidelines published by the Commissioners.

(4) Pilot potential. The Commissioners shall forward the application files of every eligible applicant to the pilots who shall consider the documentary evidence submitted with the application, any letters of recommendation received, and other information in the applicant's file. The pilots shall assign from 0 to 25 points to those applicants whose applications indicate that they have the greatest potential and who they believe are the best qualified to become pilots and future business partners, in accordance with the criteria contained in the Policies and Procedures Manual.

E. The names and rankings of the applicant(s) recommended by the pilots for certification as apprentice pilots will be submitted to the Commissioners along with the names and rankings of the next five highest-ranked applicants not recommended.

F. The Commissioners may approve the name(s) recommended by the pilots or they may return the name(s) for reconsideration.

G. The Commissioners shall award a Certificate of Apprenticeship to every apprentice they have approved. Said certificate shall terminate upon satisfactory completion of the apprentice training program or upon the termination of the apprentice for cause or resignation.

### 136-013. Pilot and Apprentice Age Limitations.

The required physical rigors and necessary stamina render service as a pilot in the Lower Coastal Area to be such that no pilot sixty-five years or older will be registered.

### 136-014. Apprentice Citizenship and Physical Requirements.

A. Every apprentice applicant must meet the requirements of Section 54-15-100 of the 1976 Code and the Coast Guard requirements for citizenship, physical health, and general federal licensure as contained in 46 CFR 10.201-10.223.

B. All apprentice applicants must certify and be prepared to demonstrate that they can swim unassisted for a distance of not less than 100 meters and can remain afloat unassisted for a period of not less than fifteen minutes immediately thereafter.



C. Every applicant for apprenticeship must be a resident of the State of South Carolina.

136-015. Previous Maritime Experience, Apprentice Applicants.

A. The Commission shall ensure that eligible applicants for apprenticeship be assured that any previous maritime experience is considered in the selection process.

B. The Commissioners shall assign up to 25 points to any applicant who has demonstrated previous maritime knowledge or experience. Consideration will be given to the following federal license and experience factors:

KIND OF MARINE EXPERIENCE DOCUMENTED POINTS

1. Master, oceans, any gross tons 21
2. Chief Mate, oceans, any gross tons 19
3. Second Mate oceans, any gross tons 17
4. Third Mate, oceans, any gross tons 15
5. Master, near coastal less than 100 GT 10
6. Operator, uninspected towing vessel or Inland Master 10
7. Federal first class pilot license or endorsement 1
8. Motorboat operator license 5
9. Small craft and sailing experience
  - (a) Collegiate sailing team member, years on team 1 to 4
  - (b) Local sailing and offshore regatta crew 1 to 5
  - (c) Small craft operation in Charleston Harbor and 5 approaches, 1 point per year, but experience must equal or exceed 100 days per year, up to a maximum of (Note: The points awarded for small craft experience can not total more than five points.) Points awarded to the above factors 1 through 9 may be accumulated to a maximum of 25.
10. The Commissioners may award up to 5 points for maritime-related credentials not listed above.

136-016. Apprentice Training Course Curriculum.

A. Satisfactory completion of the Apprentice Training Course at Charleston as approved by the Commissioners and the Commandant of the U.S. Coast Guard, requires that the apprentice must have satisfactorily completed 360 round trips encompassing a minimum of 360 days of training aboard vessels over 1600 gross tons. This course of instruction is approved by the Commandant of the U.S. Coast Guard pursuant to 46 CFR 10.307.

B. General Curriculum Requirements:

(1) In order to satisfactorily complete this training course, every apprentice must solo to the satisfaction of the majority of the supervising pilots on every route, day and night, ebb and flood tides, and on every size category of vessel calling at the port. The curriculum of the approved course requires that apprentices learn to direct the movement of vessels, apply the proper rules of the nautical road and other maritime procedures, interface and coordinate with other affected vessels and facilities, and record certain information. During each vessel movement to which the apprentice is assigned, the apprentice shall accompany the licensed pilot assigned to the vessel. The licensed pilot serves as the expert-master and interacts with the apprentice in observational and mastery learning processes. The ultimate result of the training is marked by the apprentice's satisfactory piloting of vessels under the supervision of the various pilots assigned to those movements without the need for those assigned pilots to offer coaching or verbal guidance. This accomplishment is termed a "solo".

(2) In addition to the above, the progress of every apprentice must be marked semi-annually during his or her term of apprentice training by the pilots with whom he or she has received instruction in the areas of:

- (a) Procedures
- (b) Skillfulness
- (c) Communications
- (d) Attitude

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(3) Every apprentice must receive satisfactory grades from the majority of the pilots during each semi-annual progress report period. A 3.2 grade point average on a 4.0 scale in every area of grading is required as the minimal satisfactory grade. This minimal grade shall be obtained during the final progress report period in order for an apprentice to receive a certificate that he or she has satisfactorily completed this training course. The Course Monitor shall semiannually advise each apprentice regarding his or her progress and shall also advise the Commissioners.

(4) Failure to receive satisfactory grades during the apprentice training course can result in the termination of the apprentice training program for any apprentice at any point in the program by the Commissioners.

(5) The discovery that any apprentice fails to satisfy the physical requirements for federal licensure shall be just cause for the termination of any such apprentice without regard to the grades received in the apprentice training course.

C. Upon satisfactory completion of the approved apprentice training course, the apprentice will be awarded a Certificate of Completion by the designated course monitor.

D. Any federal licensure as a federal, first-class pilot obtained by any apprentice before the completion of the apprenticeship training and qualification program shall not terminate nor shorten the three-year term of apprentice training.

E. No person shall represent himself or herself as an apprentice unless he or she has been approved and certified as an apprentice by the Commissioners. No pilot shall be required to train any uncertified person on board any vessel subject to the jurisdiction of the Commissioners. Any uncertified person posing as an apprentice aboard any vessel subject to the jurisdiction of the Commissioners shall be considered in violation of 1976 Code Section 54-15-280.

### 136-017. Completion of Apprenticeship.

A. Upon the successful completion of the three-year apprenticeship training and qualification program, including certification by the course monitor of satisfactory completion of the apprentice training course, the pilots shall provide the Commissioners with the name of every successful apprentice along with their recommendations regarding his or her prospective licensure by the Commission.

B. The complete training record of every apprentice so recommended shall be brought before the Commissioners at the time such apprentice's name is presented.

C. Nothing shall prohibit the Commissioners from periodically reviewing the progress of any apprentice undergoing training, and reviewing the progress reports on every apprentice that have been submitted by the pilots.

### 136-020. Short Branch Qualification.

A. The term of the apprentice training and qualification program shall be followed by a period of not less than three years for advanced qualification as a short branch pilot.

B. With the consent of the apprentice who has passed the term of apprenticeship, the period of short branch qualification may be suspended for a period of time to be approved by the Commissioners. Under such circumstances, the Commissioners shall assure that the passed apprentice has completed a sufficient number of refresher round trips prior to licensure.

C. The various tonnage and draft limitations for each short branch shall be:

(1) Initial (first) short branch (six months) ...35,000 Gross Registered Tons and 31 feet deep draft.

(2) Second Short Branch (six months) ...No tonnage limit, 31 feet deep draft.

(3) Third Short Branch (one year) ... No tonnage limit, 35 feet deep draft.

(4) Fourth Short Branch (one year) ... No tonnage limit, 38 feet deep draft.

D. While undergoing advance qualification, short branch pilots may be observed by full branch pilots on board such vessels to which the short branch pilots may be assigned.

E. Upon the completion of an appropriate period of time for any particular short branch, the satisfactory completion of which shall be determined by the pilots, the pilots shall submit to the Commissioners a listing of every vessel piloted by the short branch pilot during that period as well as a synopsis of any difficulties encountered to demonstrate the performance of the short branch pilot.

## 136-030. Pilot Registration.

A. The minimum number of full branch pilots for the Lower Coastal Area shall be established by the Commissioners to be sufficient to handle the number of vessels requiring pilot services. The Commissioners for the Lower Coastal Area may authorize a number of short branch pilots in addition to the number established for full branch pilots.

B. In developing the minimum number of pilots necessary, the Commissioners shall consider the average annual number of vessel movements, including both federal and state pilotage, handled by each full branch pilot for each of the previous five years. They shall also consider the average amount of pilot time required per average movement.

C. The Commissioners shall adopt procedures for monitoring increases and decreases in workload to assure that an adequate number of full branch pilot positions are established to efficiently handle the workload. The Commissioners shall further consider the recommendations of the pilots relative to developing the number of pilots required.

D. Every pilot being registered shall submit evidence that he or she has satisfactorily passed the thorough physical examination required pursuant to 46 CFR 10.709. In addition, every pilot age 60 or older shall submit specific evidence of his or her fitness to perform pilot duties with special attention and certification relative to visual acuity, hearing, heart and vascular, and musculoskeletal systems.

## 136-032. Board of Examiners.

A. The Board of Examiners shall supervise the administration of a written examination, approved by the Commissioners, to every candidate for pilot licensure.

B. The Commissioners shall provide the examiners written documentation relative to the qualifying piloting experience of the license candidate. The examiners shall be unanimously satisfied that the evidence of experience provided adequately demonstrates the necessary experience for the license for which the candidate is to be licensed.

C. The examiners shall orally examine each candidate for licensure with spontaneous questions and discussion. These questions shall be equal in importance and difficulty. These questions shall be of a technical maritime nature and shall include those subjects included in Section 54-15-60 (B) of the 1976 South Carolina Code, as amended.

## 136-035. Fees.

A. The following fees shall be remitted to the Commissioners of Pilotage for the Lower Coastal Area for each of the respective licenses issued in the Lower Coastal Area:

- (1) First short branch following apprenticeship, valid for \$250.00 a period of not less than six (6) months
- (2) Second short branch, valid for a period of not less \$100.00 than six (6) months
- (3) Third short branch, valid for a period of not less than \$150.00 one (1) year
- (4) Fourth short branch, valid for a period of not less \$150.00 than one (1) year
- (5) Full branch: \$150.00
- (6) Certificate of Apprenticeship: \$ 50.00

B. Pilot Registration Fee. Every state pilot shall pay an annual registration fee to the Commission of \$960.00.

C. Apprentice Application Fee. Every applicant for apprenticeship shall remit to the Commissioners of Pilotage for the Lower Coastal Area a non-refundable fee of \$25.00.

D. The Commissioners shall remit to each member of a board of examiners a sum of \$50.00 as compensation for each license examination.

## 136-040. Pilot Vessel Operation.

A. The pilots for the Lower Coastal Area shall obtain and engage the dedicated services of two or more privately owned pilot vessels for the sole benefit of the pilots.

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B. An appropriate number of such vessels shall be manned and available for duty 24 hours per day, seven days per week, such number to be determined by the Commissioners.

C. Every pilot vessel shall be materially sufficient and properly manned for its intended duty to the satisfaction of the Commissioners.

### 136-041. Pilot Communications Center for the Lower Coastal Area.

A. The pilots for the Lower Coastal Area shall obtain and engage the services of a privately owned manned communications center capable of receiving telephone and radio requests and other orders for commercial vessel pilot services on a 24-hour per day, seven days per week basis.

B. Nothing shall prevent such a communications center from collecting and assimilating such information, and from providing it gratuitously, or otherwise, to subscribers and other interested parties.

C. The pilots shall not be responsible to the Commissioners for any misuse, incurred costs, or damage resulting from the dissemination of information acquired by the communications center unless such information, known to be false, incorrect, or misleading, is knowingly and willfully disseminated.

### 136-045. Pilot Charges and Fees.

A. Pilotage charges and rates shall be promulgated by the Commissioners in accordance with the applicable sections of the 1976 Code.

B. The pilots shall be due payment for individual pilotage charges and fees upon the departure of any vessel from the Port, except when the pilots have elected to extend credit to such vessel owner, vessel operator, principal agent or local agent. In such cases, all payments are due not later than forty-five (45) days after the vessel's arrival in port.

C. Any agent or other non-vessel owner who makes arrangements for credit for pilotage shall be held responsible by the pilots for the amount credited if that amount is not paid within the forty-five (45) day period.

D. Pilotage charges are based upon the services of one pilot unit. No additional charges are authorized for other pilots or apprentices taken aboard a vessel for the purpose of training or route familiarization. However, nothing shall prohibit additional pilotage charges from being made whenever additional pilots are required to assure the safe maneuvering of the vessel. In such cases, one additional pilot unit may be charged for every additional pilot so embarked.

### 136-050. Federal Pilot Licensure.

A. In order that every U. S. flag vessel calling at the Lower Coastal Area be rendered properly authorized pilotage, every pilot for the Lower Coastal Area in addition to his/her state license, may also hold a valid federal first class pilot license for the Lower Coastal Area. Such federal licensure, while a practical necessity, is not a prerequisite for state licensure.

B. The pilots are authorized to perform federal pilotage services to merchant vessels requiring federally licensed pilots and to public vessels of the United States, provided that such service does not conflict with their duties as state pilots.

C. Federal law [46 USC 8502(b)] prohibits state pilots from charging more for federal pilotage than the customary rates. The pilots are authorized to charge less and are further authorized to enter into contract(s) for the performance of federal pilotage.

### 136-051. Commissioner Authority over Federal Pilotage.

A. The Commissioners have no authority over any vessel required to take a federal pilot, [see 46 USC 8501(d) and 46 USC 8502(c) and (d)], nor do they have any authority over the service of any individual who is licensed as a federal pilot.

B. Any state pilot whose federal license is suspended or revoked may be subject to the suspension and revocation of his or her state license, pursuant to the 1976 Code Section 54-15-320.

## 136-060. Marine Casualties, Accidents and Other Reports.

- A. Marine Casualties are defined in 46 CFR 4. These are required to be reported to the Coast Guard by the owners, operators, masters or agents of vessels so involved. This requirement affects all U.S. commercial vessels and every foreign flag vessel on U.S. waters.
- B. Hazardous conditions are defined in 33 CFR 160.203 and must be reported to the Coast Guard.
- C. Navigation safety regulations are prescribed in 33 CFR 164 to protect the Port.
- D. Every pilot must immediately report every marine casualty, hazardous condition and violation of a navigation safety regulation to the Coast Guard and to the Commissioners of Pilotage for the Lower Coastal Area.

## 136-061. Reports of Coast Guard Investigations.

- A. The Commissioners shall request copies of all Coast Guard investigations pertaining to accidents, marine casualties, complaints, and disciplinary actions including suspension and revocation proceedings and civil penalty actions which occurred within their area of jurisdiction.
- B. The Commissioners shall establish procedures to take appropriate action whenever a state pilot has been subjected to a Coast Guard finding of misconduct, negligence, physical or mental incompetence, or violation of federal law or regulation.

## 136-070. Pilot Functions and Responsibilities.

- A. Pilot services shall be made available to the master of every inbound vessel that requires a state pilot pursuant to the 1976 Code Section 54-15-270.
- B. Every pilot received on board a vessel for the Lower Coastal Area subject to the jurisdiction of the Commissioners shall remain on board such vessel while in transit between the pilot station and its terminal or anchorage. The transit shall begin on inbound vessels when the pilot assumes the control of the ship and shall end when the first line is passed to a pier, wharf or other waterfront facility, or until the vessel is anchored fast to the bottom. The transit shall begin on outbound vessels when the last line is passed or when the anchor is aweigh, and shall end when the pilot is discharged by the vessel's master, having arrived at that place on the bar where the adjoining depths of water are sufficient for safe navigation. The transit on shifting vessels shall be from the passing of the last line or weighing of the anchor until the first line is passed or the anchor is made fast to the bottom.
- C. Every vessel described in the 1976 Code Section 54-15-270 requiring a state pilot shall receive on board such pilot to direct the vessel movement for every inbound and outbound transit of the port and for shifting berths and anchorages within the port. This requirement applies regardless of the source of vessel propulsion, be it self propelled or propelled by tugs. If the master or operator of any seagoing vessel requiring a state pilot shall refuse to receive on board a pilot, such circumstance shall be considered a "hazardous condition" pursuant to 33 CFR 160.203 and shall immediately be reported to the Coast Guard.
- D. No pilot licensed by the Commissioners shall knowingly pilot any vessel, the operation of which, in the opinion of such pilot, may introduce an unnecessary risk to the port, other vessels, or the marine environment.
  - (1) An "unnecessary risk" includes situations where any vessel is deemed by the pilot not to be in compliance with applicable Federal Navigation Safety Regulations, or where the condition of any vessel's operation, in the opinion of the pilot, constitutes a "hazardous condition" as defined by federal regulations.
  - (2) An "unnecessary risk" may also include situations that may prevent or inhibit the safe movement of a vessel, including, but not limited to, instances wherein the wheelhouse or bridge is not properly manned by sufficient numbers of qualified crew members or, conversely, when the wheelhouse or bridge is encumbered by the presence of extraneous persons who are not members of the crew, docking pilots, pilots or apprentice pilots, owners, agents or operating managers.
  - (3) Nothing in this subpart shall prevent a pilot from piloting any vessel when, in his or her opinion, the vessel's safety or the safety of the port would be further impaired or endangered by the pilot's refusal to provide pilotage.

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E. No pilot may depart any outbound vessel in pilot waters until that vessel has met or passed any other vessel also navigating on those pilot waters.

F. The pilots may elect to waive the rates and fees for vessels refusing to receive a pilot on board as provided in 1976 Code Section 54-15-270; provided that such vessels have a maximum draft of less than eight feet and are not engaged in commerce. Whenever such waivers are granted, neither the pilots nor the vessel will be deemed to be in violation of 1976 Code Sections 54-15-220 and 54-15-270, respectively.

G. The pilots may assign more than one pilot to any given vessel if, in their opinion, an additional pilot is necessary to assure adequate visibility or otherwise ensure the safe maneuvering of said vessel.

H. A master or licensed operator of any vessel may relieve the state pilot on board under certain circumstances where the safety of the vessel is perceived by the master, or licensed operator, to be at risk, however:

(1) No master or licensed operator of any vessel, having relieved the state pilot on board, shall then serve as the pilot on such vessel when the pilot has refused to pilot the vessel pursuant to the conditions described in subparts 136-070D(1) and 136-070D(2).

(2) Whenever a pilot on a vessel has been relieved by a master or licensed operator of said vessel or whenever a pilot refuses to pilot any vessel, such pilot shall immediately broadcast a SECURITE' voice message on VHF Channels 13 and 16, stating the name of the vessel, its present position, direction of movement and speed, and the fact that a properly licensed pilot is neither directing nor controlling the vessel's movement.

(3) Whenever a pilot on a vessel has been relieved by the vessel's master or licensed operator or whenever a pilot refuses to pilot any vessel, he shall remain aboard until his disembarkation can be safely effected. Under such circumstances, such pilot is not in the service of his or her license. If such a pilot believes he or she can be of value to the vessel's master or operator subsequent to the aforementioned relief or refusal, the pilot shall offer his or her services and recommendations to the master or licensed operator, so as to mitigate risk or to provide the maximum safety under the conditions. Unless such a pilot broadcasts a second SECURITE' call on VHF Channels 13 and 16 that he or she has reassumed control, such pilot will not be considered in the service of his or her license.

### 136-071. Vessel Traffic Movement Restrictions.

A. The pilots may from time to time, under the authorities of their licenses, make general determinations relative to safe vessel movement. These determinations may consider, but not be limited to, vessel draft, state of tide, channel depths, direction of tidal currents, individual vessel maneuvering characteristics, vessel size, presence of other vessels, width of channels, and visibility.

B. The pilots shall consider any portended vessel movement that does not meet their criteria for safety as a "hazardous condition" and may refuse to serve. Any pilot encountering this situation shall report same accordingly pursuant to subpart 136-070H(2), if the vessel persists in its intentions to move against the advice of the pilots.

C. The owners or operators of any vessel adversely affected by a pilot's decision regarding its movement may appeal that decision to the Commissioners provided that such decision was not made by the Coast Guard based upon the report of a "hazardous condition" by a pilot. In which case, the appeal should be made to the Coast Guard.

### 136-072. Docking and Undocking.

A. Every master of every vessel requiring state pilotage may elect to dock or undock the vessel. Alternatively, every master may employ the services of docking masters (or "docking pilots") to maneuver the vessel in or out of the dock.

B. Whenever tugs are not engaged and whenever a qualified docking master is not assigned at a vessel master's request, a state pilot may serve as docking master.

C. State pilots, whether or not employed as docking masters, will serve every vessel on board which they are embarked as pilots. Under such circumstances, their functions will be:

(1) Advise the master of a vessel if a person purporting to be a docking master or docking pilot is known as such by the pilot to be a qualified docking master.

- (2) Be prepared to direct the vessel's movement whenever:
    - (a) A docking maneuver may be aborted, or
    - (b) An undocking maneuver has been completed, or
    - (c) A vessel's master requests the pilot's services.
  - (3) Provide communications services to the vessel's master with respect to the movement of other vessels.
  - (4) Perform the duties of bar and harbor pilot at such times and in such places whenever the safe navigation of the vessel requires, regardless of the status of tugs alongside.
  - (5) Whenever a qualified docking master is controlling the vessel during a docking or undocking maneuver, and a safety need is deemed to exist in the expert opinion of the State-licensed pilot, the pilot must intervene through the vessel master.
- D. No state pilot on board any vessel on which he or she is serving as pilot, shall be held responsible by the Commissioners for the consequences of any unsuccessful docking or undocking maneuver whenever the master or operator has employed a docking master or has elected to dock or undock said vessel himself.
- E. The state pilot and any qualified docking master, employed by the master of any vessel subject to the jurisdiction of the Commissioners, shall agree at whatever point in the vessel's docking or undocking evolution that the one shall take control of the vessel from the other. In the absence of such an agreement, the state pilot shall be required to serve as pilot and to direct the movement of every self-propelled vessel, unless otherwise relieved by the vessel's master, whenever the sole vector of motion of such vessel is the result of that vessel's own propulsion machinery and steering apparatus.

136-075. Pilotage Areas.

- A. The federal boundary lines defined in 46 CFR 7.65, 46 CFR 7.70 and 46CFR 7.75 describe the areas of the coastal waters along the coast of South Carolina that delineate the application of federal pilotage requirements. These same boundary lines shall encompass those waters upon which the Commissioners also require pilotage on those vessels subject to state pilotage laws and regulations.
- B. The Commissioners of Pilotage for the Lower Coastal Area shall extend these defined waters seaward of the federal boundary lines whenever necessary to:
  - (1) Assure that every foreign flag vessel or US vessel under register, while transiting offshore waters that otherwise may present the risk of grounding in the process of calling at every South Carolina port, is conducted and piloted by a pilot licensed by the Commissioners of Pilotage for the Lower Coastal Area.
  - (2) Assure that every foreign flag vessel or US vessel under register calling at offshore moorings located within offshore waters under the jurisdiction of the State of South Carolina is conducted and piloted by a pilot licensed by the Commissioners of Pilotage for the Lower Coastal Area.
- C. The pilot station for the pilot vessels cruising off shore shall be in the approximate vicinity of the designated sea buoy or on the waters of the Atlantic Ocean up to two nautical miles seaward of the boundary lines.

136-090. Pilot Response.

- A. The pilots will act upon all requests for pilot services without delay, provided they have been notified a minimum of three hours prior to any vessel's intended movement.
- B. The pilots will ensure the coordination of pilot assignments in the movements of all state piloted vessels that are or will be underway at the same time on those waters subject to the jurisdiction of the Commissioners.

136-095. Appeals.

- A. Any person or organization that has any complaint or other grievance with the actions of the Commissioners or the pilots, shall submit such complaint to the Commissioner's of Pilotage for the Lower Coastal Area in writing. The Commissioners shall thereupon take any action as required by statute.
- B. Appeals to decisions resulting from suspension and revocation proceedings shall be made in accordance with Section 1-23-380 of the 1976 Code.

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### 136-099. Penalties.

- A. Suspension or revocation of pilot licenses shall be initiated and prosecuted pursuant to 1976 Code Section 54-15-320 and Section 1-23-370.
- B. Fines, forfeitures, and other penalties shall be initiated and prosecuted pursuant to 1976 Code Section 54-15-340.
- C. Nothing contained within the penalty provisions of 1976 Code Title 54, Chapter 15, shall be construed to preempt or constrain the investigation or imposition of any criminal or civil action authorized or required by either federal or state law.

## ARTICLE 3 UPPER COASTAL AREA

### 136-701. Purpose.

- A. The purpose of these regulations is to establish standards for the promotion and continuance of a centralized, coordinated system of pilotage that will assure the safe and efficient movement of ocean-going shipping in to, out of and within the seaports of the State of South Carolina.
- B. Safety shall be the primary objective of pilotage and shall focus upon the safety of vessels in transit, of vessels moored, of bridges and other waterfront structures, of channels and other navigable waterways, and protection of the marine environment.
- C. Pilotage standards shall pursue the major objective of safety and the secondary objective of efficient movement by addressing, but not be limited to, each of the following aspects:
  - (1) Selection, training and qualification of pilots.
  - (2) Licensure and registration of pilots.
  - (3) Reports of accidents, risks, and other matters affecting vessel safety.
  - (4) Relationship to federal pilotage.
  - (5) Pilot logistical support systems.
  - (6) Vessel movement restrictions.
  - (7) Docking and undocking.
  - (8) Administration.

### 136-703. Definitions.

- A. "Apprentice" is defined to mean an individual approved and certified by the Commissioners who is undergoing an approved pilot training and qualification program.
- B. "Bar" is defined to mean the entrance to any port at such place in the Atlantic Ocean where the U. S. Army Corps of Engineers is authorized to commence harbor maintenance.
- C. "Branch" is defined to mean a category of pilot license denoting the absence of restrictions, or the level of restriction, placed upon the holder of said license.
- D. "Coast Guard" is defined to mean the United States Coast Guard.
- E. "Commissioners" is defined to mean the Commissioners of Pilotage for the Upper Coastal Area.
- F. "Draft" is defined to mean the deepest vertical distance required by any vessel to float measured from the surface of the water to a depth equal to the deepest portion of a vessel's hull or appurtenances.
- G. "Examiners" is defined to mean a member of a Board of Examiners convened by the Commissioners to examine apprentices for issuance of pilot licenses, and to examine pilots holding restricted pilot licenses for the next higher license.
- H. "Federal Pilot" is defined to mean any person licensed under the provisions of 46 USC 7101-7114, and required to serve under the authority of 46 USC 8502, or who may be required to serve under 46 USC 8503.
- I. "Foreign Flag" is defined to mean a vessel registered in a country other than the United States.
- J. "Full Branch" is defined to mean a license with no restrictions.
- K. "Gross Tons" is defined to mean the gross registered tonnage of any vessel as measured under the 1969 International Tonnage Convention.



- L. "Harbor" is defined to mean the waterways inshore of the bar, within a port, on which commerce may be carried.
- M. "License" is defined to mean a document issued by the Commissioners to a pilot authorizing that individual to serve as a State pilot on board such vessels requiring same.
- N. "Pilot" is defined to mean an individual licensed by the Commissioners as a pilot for the Upper Coastal Area.
- O. "Pilot Waters" is defined to mean those waters of the bar and within the harbor on which pilots are required.
- P. "Port" is defined to mean the geographic area, defined by political boundaries, surrounding and including the harbor and bar.
- Q. "Public Vessel" is defined to mean a vessel meeting the definition of contained in 46 USC 2101(24).
- R. "Seagoing Vessel" is defined to mean any vessel, or combination of tug and tows, that measure 200 or more gross tons, and/or draw 8 or more feet.
- S. "Short Branch" is defined to mean a pilot license that is restricted to service on vessels of certain size and draft limitations.
- T. "State Pilot" is defined to mean a pilot licensed by the Commissioners.
- U. "Vessel" is defined to mean, generally, every contrivance of watercraft, including craft self propelled by machinery and/or sail, and non-self propelled craft towed or pushed by another craft.

136-705. Area of Jurisdiction.

The Commissioners for the Upper Coastal Area have jurisdiction for the pilot waters between the South Carolina side of Little River and Cape Romain, S. C.

136-707. Policies and Procedures Manual.

The Commissioners shall publish and maintain a current POLICIES AND PROCEDURES MANUAL (PPM). The PPM shall provide guidance regarding the administration of matters coming before the Commissioners.

136-710. Requirement for Licensure.

No person may be licensed as a pilot without first having successfully completed the required two-year program of apprentice training and qualification, as well as the Apprentice Training Course approved by the Commissioners, except as provided in subpart 136-711E. This is applicable to temporary and emergency licenses as well as to regular full Branch and Short Branch licenses.

136-711. Apprentice Training and Qualification Program.

- A. The apprentice training and qualification program shall include the satisfactory completion of an Apprentice Training Course approved by the Commissioners.
- B. In addition to satisfactory completion of the Apprentice Training Course, every apprentice shall become qualified to perform boat crew duties on board every class of pilot vessel for the Upper Coastal Area. The apprentice training and qualification program shall consist of both the approved Apprentice Training Course and the two-year term of apprentice training.

136-712. Apprentice Selection Process.

- A. Applicants for apprenticeship shall submit applications to the Commissioners on application forms provided by the Commissioners. A non-refundable application fee shall be submitted with each application.
- B. Upon a determination of eligibility by the Commissioners, copies of the complete applications of eligible applicants will be forwarded to the pilots.
- C. At such times as vacancies may be forecast or occur within the register of pilots, the Commissioners shall certificate from among the eligible applicants the best qualified individual or individuals for apprenticeship.

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Selection shall be in accordance with selection criteria procedures, based upon numerical ranking, promulgated by the Commissioners. No agency, including the Commissioners of Pilotage, shall require the selection of more apprentices than needed to fill projected vacancies.

D. Numerical ranking shall be based upon a 100 point system, with 25 points for each of the following categories:

(1) Academic. Each High School Graduate shall receive 5 points. In addition, each applicant's cumulative Grade Point Average, on a 4.0 scale, shall be multiplied by a factor of five for persons with a baccalaureate degree and by a factor of 2.5 for persons with an associate, or equivalent, two year degree.

(2) Previous maritime experience. The Commissioners shall award points to applicants pursuant to subpart 136-715.

(3) Interview. Every applicant shall be interviewed by the Commissioners. Each person interviewed shall be assigned from 0 to 25 points based upon objective scoring guidelines published by the Commissioners.

(4) Pilot potential. The Commissioners shall forward the application files of every eligible applicant to the pilots who shall consider the documentary evidence submitted with the application, any letters of recommendation received, and other information in the applicant's file. The pilots shall assign from 0 to 25 points to those applicants whose applications indicate that they have the greatest potential and who they believe are the best qualified to become pilots and future business partners, in accordance with the criteria contained in the POLICIES AND PROCEDURES MANUAL.

E. The name(s) and ranking(s) of the applicant(s) recommended by the pilots for certification as apprentice pilots will be submitted to the Commissioners along with the names and rankings of the next five highest-ranked applicants not recommended.

F. The Commissioners may approve the name(s) recommended by the pilots or they may return the name(s) for reconsideration.

G. The Commissioners shall award a Certificate of Apprenticeship to every apprentice they have approved. Said Certificate shall terminate upon satisfactory completion of the apprentice training program, or upon the termination of the apprentice for cause or resignation.

### 136-713. Pilot Age Limitations.

The required physical rigors and necessary stamina render service as a pilot for the Upper Coastal Area to be such that no pilot age seventy-five years or older will be registered.

### 136-714. Apprentice Citizenship and Physical Requirements.

A. Every apprentice applicant must meet the requirements of Section 54-15-90 of the 1976 Code and the Coast Guard requirements for citizenship, physical health and general federal licensure as contained in 46 CFR 10.201-10.223.

B. All apprentice applicants must certify and be prepared to demonstrate that they can swim, unassisted, for a distance of not less than 100 meters, and can remain afloat, unassisted, for a period of not less than fifteen minutes, immediately thereafter.

### 136-715. Previous Maritime Experience, Apprentice Applicants.

A. The Commission shall ensure that eligible applicants for apprenticeship be assured that any previous maritime experience is considered in the selection process.

B. The Commissioners shall assign up to 25 points to any applicant who has demonstrated previous maritime knowledge or experience. Consideration will be given to the following federal license and experience factors:

#### KIND OF MARINE EXPERIENCE DOCUMENTED POINTS

1. Master, Oceans, any gross tons 21
2. Chief Mate, Oceans, any gross tons 19
3. Second Mate Oceans, any gross tons 17

- 4 Third Mate, Oceans, any gross tons 15
- 5. Master, Near Coastal less than 100 GT 10
- 6. Operator, uninspected towing vessel or Inland Master 10
- 7. Federal First Class Pilot license or endorsement 1
- 8. Motorboat Operator license 5
- 9. Small craft and sailing experience
  - (a) Collegiate sailing team member, yrs on team 1 to 4
  - (b) Local sailing and offshore regatta crew 1 to 5
  - (c) Small craft operation on the local harbors and 5 approaches, 1 point per year but experience must equal or exceed 100 days per year, up to a maximum of (NOTE: The points awarded for small craft experience can not total more that five points.) Points awarded to the above factors 1 through 9 may be accumulated to a maximum of 25.

#### 136-716. Apprentice Training Course Curriculum.

A. Satisfactory completion of the Apprentice Training Course for the Upper Coastal Area, as approved by the Commissioners and the Commandant of the U. S. Coast Guard, requires that the apprentice must have satisfactorily completed a minimum of 360 days of training aboard vessels over 1600 gross tons. This Course of Instruction is approved by the Commandant of the U. S. Coast Guard pursuant to 46 CFR 10.307.

#### B. General Curriculum Requirements:

(1) In order to satisfactorily complete this training course, every apprentice must solo, to the satisfaction of the majority of the supervising pilots, on every route, day and night, ebb and flood tides, and on every size category of vessel calling at the Port. The curriculum of the approved course requires that apprentices learn to direct the movement of vessels, apply the proper rules of the nautical road and other maritime procedures, interface and coordinate with other affected vessels and facilities, and record certain information. During each vessel movement to which the apprentice is assigned, the apprentice shall accompany the licensed pilot assigned to the vessel. The licensed pilot serves as the expert-master and interacts with the apprentice in observational and mastery learning processes. The ultimate result of the training is marked by the apprentice's satisfactory piloting of vessels under the supervision of the various pilots assigned to those movements without the need for those assigned pilots to offer coaching or verbal guidance. This accomplishment is termed a "solo".

(2) In addition to the above, the progress of every apprentice must be marked semi-annually during his or her term of apprentice training by the pilots with whom he or she has received instruction in the areas of:

- (a) Procedures
- (b) Skillfulness
- (c) Communications
- (d) Attitude

(3) Every apprentice must receive satisfactory grades from the majority of the pilots during each semi-annual progress report period. A 3.2 grade point average on a 4.0 scale, in every area of grading, is required as the minimal satisfactory grade. This minimal grade shall be obtained during the final progress report period in order for an apprentice to receive a certificate that he or she has satisfactorily completed this training course. The Course Monitor shall semiannually advise each apprentice regarding his or her progress and shall also advise the Commissioners.

(4) Failure to receive satisfactory grades during the Apprentice Training Course can result in the termination of the apprentice training program for any apprentice at any point in the program by the Commissioners.

(5) The discovery that any apprentice fails to satisfy the physical requirements for federal licensure shall be just cause for the termination of any such apprentice, without regard to the grades received in the Apprentice Training Course.

C. Upon satisfactory completion of the approved Apprentice Training Course, the apprentice will be awarded a Certificate of Completion by the designated Course Monitor.

D. Any federal licensure as a federal First Class Pilot obtained by any apprentice before the completion of the apprenticeship training and qualification program shall not terminate nor shorten the three-year term of apprentice training.

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E. No person shall represent himself or herself as an apprentice unless he or she has been approved and certified as an apprentice by the Commissioners. No pilot shall be required to train any uncertified person on board any vessel subject to the jurisdiction of the Commissioners. Any uncertified person posing as an apprentice aboard any vessel subject to the jurisdiction of the Commissioners shall be considered in violation of 1976 Code Section 54-15-280.

### 136-717. Completion of Apprenticeship.

A. Upon the successful completion of the one year apprenticeship training and qualification program for the Upper Coastal Area including certification by the Course Monitor of satisfactory completion of the Apprentice Training Course at Georgetown, the pilots shall provide the Commissioners with the name of every successful apprentice, along with a copy of his or her Branch License issued by the Commissioners of Pilotage for the Upper Coastal Area and their recommendations regarding his or her prospective licensure by the Commission.

B. The complete training record of every apprentice so recommended shall be brought before the Commissioners at the time such apprentice's name is presented.

C. Nothing shall prohibit the Commissioners from periodically reviewing the progress of any apprentice undergoing training, and reviewing the progress reports on every apprentice that have been submitted by the pilots.

### 136-720. Short Branch Qualification.

A. The term of the apprentice training and qualification program shall be followed by a period of not less than two years for advanced qualification as a Short Branch pilot.

B. With the consent of any apprentice who has passed the term of apprenticeship, the commencement of the period of short branch qualification may be suspended for a period of time, subject to the approval of the Commissioners. Under such circumstances, the Commissioners shall assure that the passed apprentice has completed a sufficient number of refresher round trips prior to licensure.

C. The various tonnage and draft limitations for each short branch shall be:

(1) Initial (first) Short Branch (one year) ... 24 feet deep draft. No tonnage restriction.

(2) Second Short Branch (one year) ... 27 feet deep draft. No tonnage restriction.

D. While undergoing advance qualification, Short Branch pilots may be observed by Full Branch pilots on board such vessels to which the Short Branch pilots may be assigned.

E. Upon the completion of an appropriate period of time for any particular Short Branch, the satisfactory completion of which shall be determined by the pilots, the pilots shall submit to the Commissioners a listing of every vessel piloted by the Short Branch pilot during that period, as well as a synopsis of any difficulties encountered, to demonstrate the performance of the Short Branch pilot.

### 136-730. Pilot Registration.

A. The maximum number of pilots for the Upper Coastal Area is limited to three (3) by statute, and may be increased by the Commissioners of Pilotage for the Upper Coastal Area to five (5). The minimum number of Full Branch pilots for the Upper Coastal Area shall be established by the Commissioners to be sufficient to handle the number of vessels requiring pilot services, in accordance with Section 54-15-130 of the 1976 South Carolina Code, as amended. The Commissioners for the Upper Coastal Area may authorize a number of Short Branch pilots in addition to the number established for Full Branch pilots not to exceed the maximum limits set by Section 54-15-130.

B. Every pilot being registered shall submit evidence that he or she has satisfactorily passed the thorough physical examination required pursuant to 46 CFR 10.709.

C. In addition to the above mentioned physical examination, every pilot age 60 or older shall submit specific evidence of his or her fitness to perform pilot duties with special attention and certification relative to visual acuity, hearing, heart and vascular, and musculoskeletal systems, in the form of a written report of physical examination, to include EKG, blood chemistry, X-Ray, and such other appended test reports that, in the

opinion of the examining physician, are appropriate. Every aforesaid physical examination must be conducted by a physician licensed by the State of South Carolina.

136-732. Board of Examiners.

- A. The Board of Examiners shall supervise the administration of a written examination, approved by the Commissioners, to every candidate for pilot licensure.
- B. The Commissioners shall provide the Examiners written documentation relative to the qualifying piloting experience of the license candidate. The Examiners shall be unanimously satisfied that the evidence of experience provided adequately demonstrates the necessary experience for the license for which the candidate is to be licensed.
- C. The Examiners shall orally examine each candidate for licensure with spontaneous questions and discussion. These questions shall be of equal importance and difficulty. These questions shall be of a technical maritime nature and shall include those subjects included in Section 54-15-70 of the 1976 South Carolina Code, as amended.

136-735. Fees.

- A. The following fees shall be remitted to the Commissioners of Pilotage for the Upper Coastal Area for each of the respective licenses issued for the Upper Coastal Area:
  - (1) First Short Branch \$250.00
  - (2) Second Short Branch \$100.00
  - (3) Full Branch \$150.00
  - (4) Certificate of Apprenticeship \$50.00
- B. Pilot Registration fee. Every State pilot shall pay an annual registration fee, remitted to the Commissioners of Pilotage, for the Upper Coastal Area as follows:
  - (1) Full Branch \$100.00
  - (2) Short Branch \$50.00
- C. Apprentice Application fee. Every applicant for apprenticeship shall remit to the Commissioners of Pilotage for the Upper Coastal Area a non-refundable fee of \$25.00.
- D. The Commissioners shall remit to each member of the Board of Examiners a sum of \$50.00 as compensation for each license examination.

136-740. Pilot Vessel Operation.

- A. The pilots for the Upper Coastal Area shall obtain and engage the dedicated services of one or more privately owned pilot vessels for the sole benefit of the pilots.
- B. An adequate number of such vessels shall be manned and available for duty 24 hours per day, seven days per week, such number to be determined by the Commissioners.
- C. Every pilot vessel shall be materially sufficient and properly manned for its intended duty to the satisfaction of the Commissioners.

136-745. Pilot Charges and Fees.

- A. Pilotage charges and rates shall be promulgated by the Commissioners in accordance with the applicable sections of the 1976 Code.
- B. The pilots shall be due payment for individual pilotage charges and fees upon the departure of any vessel from the Port, except when the pilots have elected to extend credit to such vessel owner, vessel operator, principal agent or local agent. In such cases, all payments are due not later than forty-five (45) days after the vessel's arrival in port.
- C. Any agent or other non-vessel owner who makes arrangements for credit for pilotage shall be held responsible by the pilots for the amount credited if that amount is not paid within the forty-five (45) day period.

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D. Pilotage charges are based upon the services of one pilot unit. No additional charges are authorized for other pilots or apprentices taken aboard a vessel for the purpose of training or route familiarization. However, nothing shall prohibit additional pilotage charges from being made whenever additional pilots are required to assure the safe maneuvering of the vessel. In such cases, one additional pilot unit may be charged for every additional pilot so embarked.

### 136-750. Federal Pilot Licensure.

A. The pilots are authorized to perform federal pilotage services to merchant vessels requiring federally licensed pilots, and to public vessels of the United States, provided that such service does not conflict with their duties as State pilots.

B. Federal law [46 USC 8502(b)] prohibits State pilots from charging more for federal pilotage than the customary rates. The pilots are authorized to charge less and are further authorized to enter into contract(s) for the performance of federal pilotage.

### 136-751. Commissioner Authority over Federal Pilotage.

A. The Commissioners have no authority over any vessel required to take a federal pilot, [see 46 USC 8501(d) and 46 USC 8502(c) and (d)], nor do they have any authority over the service of any individual who is licensed as a federal pilot.

B. Any State pilot whose federal license is suspended or revoked may be subject to the suspension and revocation of his or her State license, pursuant to the 1976 Code Section 54-15-320.

### 136-760. Marine Casualties, Accidents and Other Reports.

A. Marine Casualties are defined in 46 CFR 4. These are required to be reported to the Coast Guard by the owners, operators, masters or agents of vessels so involved. This requirement affects all U. S. commercial vessels and every foreign flag vessel on U. S. waters.

B. Hazardous conditions are defined in 33 CFR 160.203 and must be reported to the Coast Guard.

C. Navigation safety regulations are prescribed in 33 CFR 164 to protect the port.

D. Every pilot must immediately report every marine casualty, hazardous condition and violation of a navigation safety regulation to the Coast Guard and to the Commissioners of Pilotage for the Upper Coastal Area.

### 136-761. Reports of Coast Guard Investigations.

A. The Commissioners shall request copies of all Coast Guard investigations pertaining to accidents, marine casualties, complaints, and disciplinary actions including suspension and revocation proceedings and civil penalty actions, which occurred within their area of jurisdiction.

B. The Commissioners shall establish procedures to take appropriate action whenever a State pilot has been subjected to a Coast Guard finding of misconduct, negligence, physical or mental incompetence, or violation of federal law or regulation.

### 136-770. Pilot Functions and Responsibilities.

A. Pilot services shall be made available to the Master of every inbound vessel that requires a State pilot pursuant to the 1976 Code Section 54-15-270.

B. Every pilot received on board a vessel for the Upper Coastal Area subject to the jurisdiction of the Commissioners, shall remain on board such vessel while in transit between the Pilot Station and its terminal or anchorage. The transit shall begin on inbound vessels when the pilot assumes the control of the ship and shall end when the first line is passed to a pier, wharf or other waterfront facility, or until the vessel is anchored fast to the bottom. The transit shall begin on outbound vessels when the last line is passed, or when the anchor is aweigh, and shall end when the pilot is discharged by the vessel master, having arrived at that place on the bar

where the adjoining depths of water are sufficient for safe navigation. The transit on shifting vessels shall be from the passing of the last line, or weighing of the anchor, until the first line is passed or the anchor is made fast to the bottom.

C. Every vessel described in the 1976 Code Section 54-15-270 requiring a State pilot shall receive on board such pilot to direct the vessel movement for every inbound and outbound transit of the port, and for shifting berths and anchorages within the port. This requirement applies regardless of the source of vessel propulsion, be it self propelled or propelled by tugs. If the master or operator of any seagoing vessel requiring a State pilot shall refuse to receive on board a pilot, such circumstance shall be considered a "Hazardous Condition" pursuant to 33 CFR 160.203 and shall immediately be reported to the Coast Guard.

D. No pilot licensed by the Commissioners shall knowingly pilot any vessel, the operation of which, in the opinion of such pilot, may introduce an unnecessary risk to the port, other vessels, or the marine environment.

(1) An "unnecessary risk" includes situations where any vessel is deemed by the pilot not to be in compliance with applicable federal Navigation Safety Regulations, or where the condition of any vessel's operation, in the opinion of the pilot, constitutes a "Hazardous Condition" as defined by federal regulations.

(2) An "unnecessary risk" may also include situations that may prevent or inhibit the safe movement of a vessel, including, but not limited to, instances wherein the wheelhouse or bridge is not properly manned by sufficient numbers of qualified crew members or, conversely, when the wheelhouse or bridge is encumbered by the presence of extraneous persons who are not members of the crew, docking masters, pilots or apprentice pilots, owners, agents, operating managers or federal officials conducting official business authorized by law.

(3) Nothing in this subpart shall prevent a pilot from piloting any vessel, when in his or her opinion, the vessel's safety or the safety of the port would be further impaired or endangered by the pilot's refusal to provide pilotage.

E. No pilot may depart any outbound vessel in pilot waters until that vessel has met or passed any other vessel also navigating on those pilot waters.

F. The pilots may elect to waive the rates and fees for vessels refusing to receive a pilot on board, as provided in 1976 Code Section 54-15-270; provided, that such vessels have a maximum draft of less than eight feet and are not engaged in commerce. Whenever such waivers are granted, neither the pilots nor the vessel will be deemed to be in violation of 1976 Code Sections 54-15-220 and 54-15-270, respectively.

G. The pilots may assign more than one pilot to any given vessel if, in their opinion, an additional pilot is necessary to assure adequate visibility or otherwise ensure the safe maneuvering of said vessel.

H. A master or licensed operator of any vessel may relieve the State pilot on board under certain circumstances where the safety of the vessel is perceived by the master, or licensed operator, to be at risk, however:

(1) No master or licensed operator of any vessel, having relieved the State pilot on board, shall then serve as the pilot on such vessel when the pilot has refused to pilot the vessel pursuant to the conditions described in subparts 136-770D(1) and 136-770D(2).

(2) Whenever a pilot on a vessel has been relieved by a master, or licensed operator, of said vessel, or whenever a pilot refuses to pilot any vessel, such pilot shall immediately broadcast a SECURITE' voice message on VHF Channels 13 and 16 stating the name of the vessel, its present position, direction of movement and speed, and the fact that a properly licensed pilot is neither directing nor controlling the vessel's movement.

(3) Whenever a pilot on a vessel has been relieved by the vessel's master, or licensed operator, or whenever a pilot refuses to pilot any vessel, he shall remain aboard until his disembarkation can be safely effected. Under such circumstances, such pilot is not in the service of his or her license. If such a pilot believes he or she can be of value to the vessel master or operator, subsequent to the aforementioned relief or refusal, the pilot shall offer his or her services and recommendations to the master, or licensed operator, so as to mitigate risk or to provide the maximum safety under the conditions. Unless such a pilot broadcasts a second SECURITE' call on VHF Channels 13 and 16 that he or she has reassumed control, such pilot will not be considered in the service of his or her license.

#### 136-771. Vessel Traffic Movement Restrictions.

A. The pilots may, from time to time, under the authorities of their licenses make general determinations relative to safe vessel movement. These determinations may consider, but not be limited to, vessel draft, state

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of tide, channel depths, direction of tidal currents, individual vessel maneuvering characteristics, vessel size, presence of other vessels, width of channels, and visibility.

B. The pilots shall consider any portended vessel movement that does not meet their criteria for safety as a "Hazardous Condition" and may refuse to serve. Any pilot encountering this situation shall report same accordingly pursuant to subpart 136-770H(2), if the vessel persists in its intentions to move against the advice of the pilots.

C. The owners or operators of any vessel adversely affected by a pilot's decision regarding its movement may appeal that decision to the Commissioners; provided, that such decision was not made by the Coast Guard based upon the report of a "Hazardous Condition" by a pilot, in which case the appeal should be made to the Coast Guard.

### 136-772. Docking and Undocking.

A. Every master of every vessel requiring State pilotage may elect to dock or undock his/her vessel. Alternatively, every master may employ the services of docking masters (or "docking pilots") to maneuver the vessel in or out of the dock.

B. Whenever tugs are not engaged and whenever a qualified docking master is not assigned, at any vessel master's request, a state pilot may serve as docking master.

C. State pilots, whether or not employed as docking masters, will serve every vessel on board which they are embarked as pilots. Under such circumstances, their functions will be:

(1) Advise the master of such vessel if any person purporting to be a docking master or docking pilot is known by the pilot to be a qualified docking master.

(2) Be prepared to direct the vessel's movement whenever:

(a) A docking maneuver may be aborted, or

(b) An undocking maneuver has been completed, or

(c) A vessel's master requests the pilot's services.

(3) Provide communications services to the vessel's master with respect to the movement of other vessels.

(4) Perform the duties of bar and harbor pilot at such times and in such places when the safe navigation of the vessel requires said pilot to make navigational recommendations to the vessel master, regardless of the presence or status of tugs alongside.

D. No State pilot on board any vessel, on which he or she is serving as pilot, shall be held responsible by the Commissioners for the consequences of any unsuccessful docking or undocking maneuver whenever the master or operator has employed a docking master or has elected to dock or undock said vessel himself.

E. The State pilot and any qualified docking master, employed by the master of any vessel subject to the jurisdiction of the Commissioners, shall agree at whatever point in the vessel's docking or undocking evolution that the one shall take control of the vessel from the other. In the absence of such an agreement, the State pilot shall be required to serve as pilot and to direct the movement of every self-propelled vessel, unless otherwise relieved by the vessel's master, whenever the sole vector of motion of such vessel is the result of that vessel's own propulsion machinery and steering apparatus.

### 136-790. Pilot Coordination.

A. The pilots will act upon all requests for pilot services without delay; provided, they have been notified a minimum of six (6) hours prior to any vessel's intended movement.

B. The pilots will ensure the coordination of pilot assignments in the movements of all State piloted vessels that are, or will be, underway at the same time on those waters subject to the jurisdiction of the Commissioners.

### 136-795. Appeals.

A. Any person or organization that has any complaint or other grievance with the actions of the Commissioners, or the pilots, shall submit such complaint to the Commissioner's of Pilotage for the Upper Coastal Area in writing. The Commissioners shall thereupon take any action required by statute.



B. Appeals to decisions resulting from suspension and revocation proceedings shall be made in accordance with Section 1-23-380 of the 1976 Code.

136-799. Penalties.

A. Suspension or revocation of pilot licenses shall be initiated and prosecuted pursuant to 1976 Code Section 54-15-320 and Section 1-23-370.

B. Fines, forfeitures and other penalties shall be initiated and prosecuted pursuant to 1976 Code Section 54-15-340.

C. Nothing contained within the penalty provisions of 1976 Code Title 54, Chapter 15, shall be construed to preempt or constrain the investigation-or imposition of any criminal or civil action authorized or required by either federal or state law.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

**Statement of Rationale:**

The purpose of Regulations 136-001 through 136-799 is to update the regulations in conformance with 2006 Act 237.

Document No. 3122

**DEPARTMENT OF NATURAL RESOURCES**

CHAPTER 123

Statutory Authority: 1976 Code Sections 50-11-2200 and 50-11-2210

123.40 Wildlife Management Area Regulations

123.205. Regulations Applicable to Specific Properties

**Synopsis:**

These regulations amend Chapter 123-40 and 123-205 in order to establish additional uses on lands owned by the South Carolina Department of Natural Resources.

**Instructions:**

Amend Regulations 123-40 and 123-205 to allow equestrian use of specific properties.

123-40. Wildlife Management Area Regulations.

**(T) Woodbury WMA**

Quality Deer Management Area – Antlered deer must have at least 4 points on 1 side or a minimum 12-inch antler spread. A point must be at least 1 inch long measured from the nearest edge of main beam to the top of the point. No more than 3 bucks total may be taken during all seasons combined regardless of method. No buckshot. Hogs may be taken only during deer hunts or scheduled hog hunts. No ATVs allowed.

## 378 FINAL REGULATIONS

### (W) Marsh Furniture WMA

Still hunting only, no deer dogs, no buckshot, no hunting from vehicles or from or on roads open to vehicular traffic. No bay or catch dogs allowed for hog hunting. Wild hogs may only be taken during deer hunts and designated hog hunts. Buckshot and rimfire firearms not permitted. No ATVs allowed.

#### 123-205 Regulations Applicable to Specific Properties

##### W. Santee Coastal Reserve

(12) Horse riding by permit only on roads open to motorized vehicle traffic, upland areas only, no groups larger than 5 horses. No horse riding during hunting seasons.

##### FF. Palachucola

(1) Horseback riding by permit only, only on roads open to motorized vehicles, no groups larger than 5 horses, and no horseback riding during any open hunting seasons.

##### GG. Edisto

(1) Horse riding is allowed on roads open to motorized vehicle traffic except during deer seasons.

##### HH. Bonneau Ferry

(1) Horseback riding by permit only, only on roads open to motorized vehicles, no groups larger than 5 horses, and no horseback riding during any open hunting seasons.

##### II. Woodbury

(1) Horseback riding allowed on roads open to motorized vehicles and no horseback riding during any open hunting season. The following roads are open year round: Brittons Neck Road/Woodbury Road, Pet Lawrimore Road, Sampson Landing Road, Sanders Landing Road, Parker Landing Road.

##### JJ. Marsh

(1) Horseback riding allowed on roads open to motorized vehicles and no horseback riding during any open hunting season. The following roads are open year round: Murray Road, Pine Log Landing Road, Mouth of Catfish Creek Road.

##### KK. Hamilton Ridge

(1) Horseback riding by permit only, only on roads open to motorized vehicles, no groups larger than 5 horses, and no horseback riding during any open hunting seasons.

##### LL. Laurel Fork Heritage Preserve

(1) Horses may be ridden on any road that is not posted as closed.

##### MM. Henderson Heritage Preserve

(1) Horse riding is allowed only on roadways, firebreaks and established trails. No groups larger than 5 horses. Horse riders must wear international orange clothing during open hunting seasons.

##### NN. Ditch Pond Heritage Preserve

(2) Horse riding is allowed only on roadways, firebreaks and established trails. No groups larger than 5 horses. Horse riders must wear international orange clothing during open hunting seasons.

### **Fiscal Impact Statement:**

This amendment of Regulations 123-205 will not change public hunting opportunities or result in changes in the generation of State revenue through license sales.

**Statement of Rationale:**

Rationale for the formulation of these regulations is based on over 60 years of experience by SCDNR in establishing public hunting areas. New areas are evaluated on location, size, current wildlife presence, access and recreation use potential. Management plans and Public use determination documents are on file with the Wildlife Section of the Department of Natural Resources, Room 267, Dennis Building, 1000 Assembly Street, Columbia.

Document No. 3141

**DEPARTMENT OF NATURAL RESOURCES**

**CHAPTER 123**

Statutory Authority: 1976 Code Sections 50-1-200, 50-1-220, 50-11-10, 50-11-105, 50-11-310, 50-11-335, 50-11-350, 50-11-390, 50-11-520, 50-11-530, 50-11-854, 50-11-2200 and 50-11-2210

- 123-40. Wildlife Management Area Regulations
- 123-51. Turkey Hunting Rules and Seasons
- 123-52. Deer Hunting on Private Lands in Game Zones 1 and 2

**Synopsis:**

These regulations amend Chapter 123-40, 123-51 and 123-52 in order to set seasons, bag limits and methods of hunting and taking of wildlife on existing and additional Wildlife Management Areas.

**Instructions:** Amend Regulations 123-40, 123-51 and 123-52 to establish changes and include additional WMA's.

~~Indicates Matter Stricken~~

Indicates New Matter

**Text:**

HUNTING IN WILDLIFE MANAGEMENT AREAS

123-40. Wildlife Management Area Regulations.

1.1 The following regulations amend South Carolina Department of Natural Resources regulation Numbers 123-40, 123-51 and 123-52.

1.2. The regulations governing hunting including prescribed schedules and seasons, methods of hunting and taking wildlife, and bag limits for Wildlife Management Areas and special restrictions for use of WMA lands are as follows:

**(A) Game Zone 1**

**Chauga, Franklin L. Gravely and Caesar's Head WMAs**

Small Game	No hunting before Sept. 1 or after Mar. 1; otherwise. Game Zone 1 seasons apply. <u>US Forest Service Long Creek Tracts.</u> <u>Oconee County, small game only</u>	Game Zone 1 bag limits.
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between Thanksgiving Day and  
March 1.

### Hogs and Coyotes

On each WMA property, feral hogs and coyotes may be taken during the open season for game. No hog hunting with dogs during the still gun hunts for deer or bear. Hog hunters must use small game weapons during small game-only season. During turkey season hogs may be taken using legal weapons for turkey only.

### (B) Game Zone 2

**John C. Calhoun, Cokesbury, Clarks Hill, Parsons Mountain, Key Bridge, Forks, Ninety-six, Goldmine, Murray, Enoree, Fairforest, Keowee, Fant's Grove, Carlisle, Broad River, Dutchman, Wateree and Worth Mountain WMA's.**

Still Gun Hunts (No dogs)	Oct. 11 through the Saturday after Thanksgiving; 3rd Monday after Thanksgiving through Jan. 1.	10 deer; 2 per day, buck ONLY for gun hunts except either-sex on days specified in Reg. 4.2. Limit of 10 must not include more than 5 bucks. Male fawns apply toward the buck limit. Archers are allowed to take either sex during entire period <u>and tags are valid starting Oct. 1</u> however, daily and season bag limits apply.
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### (C) Crackerneck WMA and Ecological Reserve

All individuals must sign in and out at main gate. Scouting seasons (no weapons), will be Saturdays only during September and March. The gate opens at 6:00am and closes at 8:00pm. On deer hunt days, gates will open as follows: Oct., 4:30am-8:30pm; Nov. - Dec., 4:30am-7:30pm. For special hog hunts in Jan. and Feb., gate will be open from 5:30am-7:00pm. Hog hunters are required to wear either a hat, coat or vest of international orange. Hogs may NOT be taken from Crackerneck alive and hogs must be shown at check station gate. No more than 4 bay or catch dogs per party. On Saturday night raccoon hunts, raccoon hunters must cease hunting by midnight and exit the gate by 1:00am. On Friday night raccoon hunts, raccoon hunters must cease hunting by 1 hour before official sunrise and exit the gate by official sunrise. All reptiles and amphibians are protected. No turtles, snakes, frogs, toads, salamanders etc. can be captured, removed, killed or harassed.

Raccoon & Opossum	3 <sup>rd</sup> Sat. night in Oct. - Jan. 1, Sat. nights only; 1 <sup>st</sup> Fri. night in Jan. to last <u>Fri. or Sat.</u> night in Feb., Fri. and Sat. nights only.	3 raccoons per party per night. No limit on Opossums.
Small Game (except no open season on bobcats, foxes, otters and fox squirrels).	3 <sup>rd</sup> Fri. in Oct. - last <u>Fri. or Sat.</u> in Feb. Fri., Sat. and Thanksgiving Day only.	Game Zone 3 bag limits.

**(G) Francis Marion National Forest**

During still gun hunts for deer there shall be no hunting or shooting from, on or across any road open to vehicle traffic. No buckshot on still gun hunts. During deer hunts when dogs are used buckshot only is permitted. On either-sex deer hunts with dogs, all deer must be checked in by one hour after legal sunset. Hogs may only be taken during deer hunts and special hog hunts. On all still gun and muzzleloader either-sex hunts for all units, all does must be tagged with an individual antlerless deer tag except when harvested on county-wide either-sex days. Individual antlerless deer tags are valid on days not designated as either-sex after Sept. 15 for still hunting only.

Total of 8 deer for all gun and muzzleloader hunts on the Francis Marion.

**Hellhole WMA**

Hog Hunts \_\_\_\_\_ Sat. only in Feb. \_\_\_\_\_ No limit

~~No more than 4 bay or catch dogs per party. No still or stalk hunting permitted. One shotgun per party (buck shot only). Pistols allowed. Hog hunters must have a hunting license and WMA permit, and are required to wear a hat, coat or vest of solid international orange color while hunting. Hogs may not be transported alive. Hogs taken must be brought to the check station and a data card completed.~~

~~Hog hunters must sign a register at Hellhole Check Station (Hwy. 41) upon entering and leaving Hellhole WMA.~~

**Waterhorn WMA**

Hog Hunts with dogs Sat. only in Feb. No limit.  
Every other Sat. in Feb. beginning with the 1<sup>st</sup> Sat.

No more than 4 bay or catch dogs per party. No still or stalk hunting permitted. One shotgun per party (buck shot only). Pistols allowed. Hog hunters must have a hunting license and WMA permit, and are required to wear a hat, coat or vest of solid international orange color while hunting. Hogs may not be transported alive. Hog hunters must sign in at designated locations and complete a data card upon entering and leaving Waterhorn WMA. Hunting allowed from legal sunrise to legal sunset.

**Wambaw WMA**

Hog Hunts with dogs Every other Sat. beginning with the 2<sup>nd</sup> Sat. in Feb. and ending on 1<sup>st</sup> Sat. in March. No limit.

No more than 4 bay or catch dogs per party. No still or stalk hunting permitted. One shotgun per party (buck shot only). Pistols allowed. Hog hunters must have a hunting license and WMA permit, and are required to wear a hat, coat or vest of solid international orange color while hunting. Hogs may not be transported alive. Hog hunters must sign in at designated locations and complete a data card upon entering and leaving Wambaw WMA. Hunting allowed from legal sunrise to legal sunset.

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### (H) Moultrie

#### Hall WMA

Small Game (Shotguns only)	<del>No small game season on Hall WMA. Jan. 2 through Mar. 1</del>	<u>Game Zone 6 bag limits except quail 8 per day.</u>
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### (J) Webb WMA

Quail Hunts	<del>No open season except hunters selected by computer drawing.</del>	<del>10 quail per hunt period.</del>
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<u>Quail hunters must pick-up and Return data cards At kiosk</u>	<u>2<sup>nd</sup> and 4<sup>th</sup> Wed. in Jan. 3<sup>rd</sup> Sat. in Jan. 1<sup>st</sup> and 3<sup>rd</sup> Sat. in Feb. 1<sup>st</sup> Wed. in Feb.</u>	<u>8 quail per party per day</u>
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Hog Hunts No dogs.	<del>1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Tues. in Sept. 3<sup>rd</sup> Thurs. – Sat. in March 2<sup>nd</sup> Thurs. – Sat. in May 1<sup>st</sup> Thurs. – Sat. in Sept.</del>	No limit.
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Hog Hunts with dogs (pistols only) Four dog limit per party.	<del>1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Thurs. in Sept. and 3 days beginning the 1<sup>st</sup> Thurs. in March. 1<sup>st</sup> Thurs.- Sat. in March 2<sup>nd</sup> Thurs.-Sat. in March 2<sup>nd</sup> Thurs. – Sat. in Sept.</del>	No limit.
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### (P) Pee Dee Station Site WMA

Deer	Total of 3 for all hunt periods combined.
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Still hunting only, no deer dogs, no buckshot, no hunting or shooting from or on any roads open to vehicular traffic. The scouting seasons are 3-day periods on Saturday through Monday immediately proceeding hunt periods. Hunters must sign in and out at the check station.

### (Q) Aiken Gopher Tortoise WMA

Deer Hunts (No dogs)	Total 3 deer Not to include more than 2 bucks. <u>Hogs no limit.</u>
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Raccoon & Opossum                      Thanksgiving night – Mar. 1                      3 raccoons per party per night.  
No limit on opossum.

Hogs    Oct. 1 - Jan. 1    No limit.

**(R) Santee Coastal Reserve WMA**

Special Hog Hunt                      2<sup>nd</sup> and 4<sup>th</sup> Thurs. in Feb.  
 With Dogs                                      3<sup>rd</sup> and 4<sup>th</sup> Fri. in Mar.                                      Hogs Only, no limit, handguns only, limit of 4 bay or catch dogs per party, no live hogs to be removed from Santee Coastal. All hogs must be checked at the Santee Coastal Reserve check station.

**(S) Other Small WMAs**

**Chesterfield, Kershaw, Dillon & Marlboro Counties**

Archery Only Hunts                      Sept. 1 – 14 ~~30~~                                      Total of 3 deer for all archery hunts, ~~either-sex~~ Sept. 15 – 30, 2 per day.

Still Gun Hunts and Archery (No Dogs)                      Sept 15 ~~Oct. 1~~ - Jan 1                                      Total 10 deer for all gun hunts, 2 per day, buck only except on Game Zone 4 either-sex days as specified in Reg. 4.2. Limit of 10 may not include more than 5 bucks. Male deer required 2 inches of visible antler above the hairline to be legal. Male fawns (button bucks) are considered antlerless deer, legal only during either-sex hunts; however, they apply toward the buck limit. Archers are allowed to take either-sex during entire period; however, daily and season bag limits apply.

Small Game                                      No hunting before Sept. 1 or after Mar. 1; otherwise Game Zone 4 limits apply.                                      Game Zone 4 bag limits.

**384 FINAL REGULATIONS**

**Dillon County**

Archery	Sept. 1 – Jan. 1	Total 5 deer per season, buck only, except on Game Zone 4 either sex days as specified in Reg. 4.2.
Still Gun Hunts (No dogs) No buckshot.	Sept. 15 – Jan. 1	Total 5 deer per season, buck only except on Game Zone 4 either sex days as specified in Reg. 4.2.
Small Game	No hunting before Sept. 1 or after Mar. 1; otherwise Game Zones 4 seasons apply.	Game Zone 4 bag limits

Hogs And Coyotes: On other WMA lands in Game Zones 3 - 6, hogs and coyotes may be taken during the open season for game. No hog or coyote hunting with dogs during still gun hunts for deer. Only small game weapons allowed during the small game-only seasons. During turkey season hogs may be taken using legal weapons for turkey only.

**(U) Manchester State Forest WMA**

Deer Total of 5 deer per season for all hunts.

Deer must be checked at check station. No man-drives during either-sex still gun hunts for deer. Hogs maybe taken only during deer hunts ~~or special hog hunts~~. No hogs may be removed alive from MSF.

Special Hog Still Gun Hunt	1 <sup>st</sup> Mon. through the last Sat. in Jan.	Hogs Only, no limit, no bay or catch dogs.
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Special Hog Hunt dogs	1 <sup>st</sup> Mon. through the last Sat. in Feb.	Hogs only, no limit, handguns with only, limit of 4 bay or catch dogs per party, no live hogs to be removed from Manchester SF.
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Quail (Except Bland and Tuomey Tracts)	Thanksgiving – March 1.	Game Zone 5 bag limits.
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Quail (Bland and Tuomey Tracts) Quail hunters must pick up and return data cards at access points.	Designated <del>days</del> <del>Wed. and Sat.</del> within Game Zone 5 season. <del>in Dec., Jan., and Feb.</del> <del>Shotguns must be plugged</del> <del>so as not to hold more than</del> <del>3 shells.</del>	Game Zone 5 bag limits.
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Squirrel and Rabbit Thanksgiving Day - Mar. 1  
 Except no squirrel or rabbit  
 hunting on Bland and Tuomey  
 Tracts during scheduled quail  
 hunts. Game Zone 5 bag limits.

**(X) Hamilton Ridge WMA**

Deer

Archery Only 3<sup>rd</sup> Mon- Sat. in Sept.  
 (No dogs) 4<sup>th</sup> Mon. – Sat. in Oct.  
2<sup>nd</sup> Mon. – Sat. in Nov.  
2<sup>nd</sup> Thur. – Sat. in Dec. 2 deer per hunt period, either-sex,  
 only 1 buck. Hogs no limit.

Small Game No hunting before Dec. 26 or  
 No open season on after Mar. 1; otherwise Game  
 fox squirrels ~~or quail~~. Zone seasons apply. No  
 hog hunting during small game  
 hunts. Game Zone bag limits.

Hog Still and Stalk Hunts ~~1<sup>st</sup> 4 Fridays in May~~  
 Archery and Firearms 3<sup>rd</sup> Thurs. – Sat. in March  
 (No dogs, no buckshot) 2<sup>nd</sup> Thurs. – Sat. in May  
1<sup>st</sup> Thurs. – Sat. in Sept. No limit.

Hog Hunts 1<sup>st</sup> Thur. – Sat. in Mar.  
 with dogs (handguns only) ~~4<sup>th</sup> Thur. – Sat. in Mar.~~  
 Four dog limit per party. 2<sup>nd</sup> Thurs. - Sat. in March  
2<sup>nd</sup> Thurs. – Sat. in Sept No limit.

Hog hunters are required to wear hat, coat or vest of solid international orange color while hunting. Hunters must sign register upon entering and leaving Hamilton Ridge WMA.

Quail Hunts

Quail hunters 2<sup>nd</sup> and 4<sup>th</sup> Wed. in Jan. 8 quail per party per day  
Must pick-up and 3<sup>rd</sup> Sat. in Jan.  
Return data cards 1<sup>st</sup> and 3<sup>rd</sup> Sat. in Feb.  
At kiosk 1<sup>st</sup> Wed. in Feb.

**(DD) Palachucola WMA**

Small Game No hunting before Sept. 1 or  
 (No open season for after Mar. 1; otherwise Game  
 fox squirrels ~~or quail~~) Zone 6 seasons apply.  
 No small game hunting during  
 scheduled deer hunts. Game Zone 6 bag limits.

**386 FINAL REGULATIONS**

Quail Hunts

<u>Quail hunters</u>	<u>2<sup>nd</sup> and 4<sup>th</sup> Wed. in Jan.</u>	<u>8 quail per party per day</u>
<u>Must pick-up and</u>	<u>3<sup>rd</sup> Sat. in Jan.</u>	
<u>Return data cards</u>	<u>1<sup>st</sup> and 3<sup>rd</sup> Sat. in Feb.</u>	
<u>At kiosk</u>	<u>1<sup>st</sup> Wed. in Feb.</u>	

Hog Hunts	<del>1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Tues. in Sept.</del>	No limit.
No dogs	<u>3<sup>rd</sup> Thurs. – Sat. in March</u>	
	<u>2<sup>nd</sup> Thurs. – Sat. in May</u>	
	<u>1<sup>st</sup> Thurs. – Sat. in Sept.</u>	

Hog Hunts	<del>1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Thurs. in Sept.</del>	No limit.
with Dogs	<del>and 3 days beginning the 1st</del>	
(Pistols)	<del>Thurs. in March.</del>	
Four dog limit	<u>1<sup>st</sup> Thurs.- Sat. in March</u>	
per party.	<u>2<sup>nd</sup> Thurs.-Sat. in March</u>	
	<u>2<sup>nd</sup> Thurs. – Sat. in Sept.</u>	

**(OO) Santee Dam WMA**

Deer		Total of 8 deer per season.
Archery	Sept. 1 through <u>Jan. 1</u> <del>Nov. 1</del>	2 deer per day, buck only,
(No dogs)		except either-sex Sept. 15 -
		<u>Jan. 1</u> <del>Nov. 1</del> . Hogs no limit.
Muzzleloader	Sept. 15 through <u>Jan. 1</u> <del>Nov. 1</del>	2 deer per day, either-sex.
		Hogs no limit.
<del>Special Gun Hunts</del>	<del>No open deer season after</del>	<del>1 deer per day, either sex.</del>
<del>For Youth and Women</del>	<del>Nov. 1 except hunters selected</del>	<del>Hogs no limit.</del>
	<del>by drawing.</del>	

Small Game	Jan. 2 through Mar. 1.	Game Zone 5 bag limits.
Shotguns only, no open season on fox squirrels.		Except quail 8 per day.

**(QQ) Oak Lea WMA**

Small Game <u>(except quail)</u>	Jan. 2 through Mar. 1	Game Zone 5 limits.
<del>No open season on quail.</del>	<u>Except no small game hunting</u>	
	<u>during scheduled quail hunts</u>	
<u>Quail</u>	<u>Designated dates within Game</u>	<u>Game Zone 5 limits.</u>
	<u>Zone 5 season.</u>	

**(SS) Edisto WMA**

Small Game	<u>Game Zone 6 seasons, except no hunting before the Monday following the closing of still gun deer hunt or after <del>until</del> Mar. 1</u>	Game Zone 6 bag limits except Quail- 8 per day.
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**(TT) Stumphouse WMA**

In order to fish or hunt Stumphouse WMA each adult (21 or older) must have at least one youth 17 or under accompanying them. Senior Citizens over 65 years of age are exempt from carrying a youth in order to fish. No motorized vehicles or horses allowed on the property except in designated parking areas. Walk in use only. Small game hunting only from Thanksgiving Day through March 1.

**(VV) Bonneau Ferry WMA**

~~Horse riding is prohibited.~~ No camping is allowed. No person hunting on Bonneau Ferry WMA may possess, consume, or be under the influence of intoxicants including beer, wine, liquor or illegal drugs. All terrain vehicles are prohibited. Hunting access by boat is prohibited. Adult/youth fishing only. For fishing, youth must be accompanied by no more than two adults 18 years old or older. For hunting, Adult/youth Side A is open only to youth 8-17 years old or younger who must be accompanied by only one adult 21 years of age or older. Youth hunters must carry a firearm and hunt. Adults with youth hunters may also carry a firearm and hunt. For deer and small game hunting Sides A and B will alternate each year. All hunters must sign in and sign out upon entering or leaving Bonneau Ferry WMA. Bonneau Ferry WMA is closed to public access one hour after sunset until one hour before sunrise except, for special hunts regulated by DNR. Hunters may not enter WMA prior to 5:00 AM on designated hunts. All impoundments and adjacent posted buffers are closed to all public access Nov. 1 – Mar. 1 except for special draw deer hunts and waterfowl hunts regulated by DNR during the regular waterfowl season. No fox or bobcat hunting.

Deer	<u>Limit 2 deer per day, total 8 deer per season for all hunts, no more than 2 antlered deer total. Hogs no limit.</u>
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Side A (Adult/Youth Only)

Still Gun Hunts	Sept. 15 – Jan. 1, Wed., Fri., Sat., <u>and the entire</u> <del>except</del> week of Thanksgiving and 5 days before Christmas until Jan. 1.	<del>Total 8 deer, 2 deer per day, either sex except only 2 antlered bucks per season. Hogs no limit.</del>
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Side B

~~Total 8 deer, 2 deer per day, except only 2 antlered bucks per season. Hogs no limit.~~

Archery

1 <sup>st</sup> Mon. – Sat. in Sept.	<del>2 deer per day, either sex</del> <u>Buck only.</u>
1 <sup>st</sup> Mon. – Sat. after Sept. 15	<u>Either-sex</u>
<u>2<sup>nd</sup> Mon. in Nov. until Nov. 30</u>	<u>Either-sex.</u>

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Quail (Side B)                      No open season except hunters                      Limit 8 per day.  
Shotguns must be plugged to                      selected by drawing.  
Hold no more than 3 shells.  
Hunters must pick up, accurately  
fill out and return data card at the  
main entrance.

#### **(WW) Ditch Pond HP WMA**

During still gun hunts for deer, there shall be no hunting or shooting from, on or across any road open to vehicular traffic.

<u>Deer Hunts</u> <u>(No dogs)</u>		<u>Total 3 deer</u> <u>Not to include more than</u> <u>2 bucks.</u>
<u>Archery</u> _____ <u>(No dogs)</u>	<u>Oct. 1 - Jan. 1</u>	<u>1 deer per day, buck only,</u> <u>except either-sex on Game</u> <u>Zones 3 and 6 either-sex days as</u> <u>specified in Reg. 4.2.</u>
<u>Small Game</u> <u>No open season on</u> <u>fox Squirrels</u>	<u>Thanksgiving Day - Mar. 1</u>	<u>Game Zone 3 and 6 bag limits.</u>

#### **(XX) Henderson HP WMA**

During still gun hunts for deer, there shall be no hunting or shooting from, on or across any road open to vehicular traffic.

<u>Deer Hunts</u> <u>(No dogs)</u>		<u>Total 3 deer</u> <u>Not to include more than</u> <u>2 bucks.</u>
<u>Archery</u> _____ <u>(No dogs)</u>	<u>Oct. 1 - Jan. 1</u>	<u>1 deer per day, buck only,</u> <u>except either-sex on Game</u> <u>Zones 3 either-sex days as</u> <u>specified in Reg. 4.2.</u>

2.8 On ~~State-owned, US Forest Service and other Federally-owned~~ WMA lands any hunter younger than sixteen (16) years of age must be accompanied by an adult (21 years or older) who is validly licensed and holds applicable permits, licenses or stamps for the use of WMA lands. Sight and voice contact must be maintained.

This also applies to non-state or non-federally owned leased WMA land in Game Zones 1 and 2 for deer hunting.

2.10 No person may release or attempt to release any animal onto ~~Department-owned~~ WMA lands without approval from the Department.

2.11 While hunting on ~~Department-owned~~ WMA's, no person may consume or be under the influence of intoxicants, including beer, wine, liquor or drugs.

2.13 Taking or destroying timber, other forest products or cutting firewood on WMA lands without written permission from the landowner or his agent is prohibited. Users of WMA lands are prohibited from planting, attempting to plant, burning or otherwise attempting to manipulate crops, natural vegetation or openings without written permission from the landowner or his agent.

3.1 On WMA lands hunters may use any shotgun, rifle, bow and arrow or hand gun except that specific weapons may be prohibited on certain hunts. Small game hunters may possess or use shotguns with shot no larger than No. 2 or .22 rimfire or smaller rifles/handguns or primitive muzzle-loading rifles of .40 caliber or smaller. Small game hunters may not possess or use buckshot, slugs or shot larger than No. 2. Blow guns, dart guns or drugged arrows are not permitted. Small game hunters using archery equipment must use small game tips on the arrows (judo points, bludgeon points, etc.). The use of crossbows during any archery only season is unlawful except as allowed by 50-11-565.

3.2 For Special Primitive Weapons Seasons, primitive weapons include bow and arrow and muzzle-loading shotguns (20 gauge or larger) and rifles (.36 caliber or larger) with open or peep sights or scopes, which use black powder or a black powder substitute that does not contain nitro-cellulose or nitro-glycerin components as the propellant charge. There are no restrictions on ignition systems (e.g. flintstone, percussion cap, shotgun primer, disk, electronic, etc.). ~~ignition at the breech must be by the old type percussion cap which fits on a nipple or by flintstone striking frizzen or a "disk" type ignition system. The use of in-line muzzleloaders and muzzleloaders utilizing a shotgun primer in a "disk" type ignition system is permitted.~~ During primitive weapons season, no revolving rifles are permitted. Crossbows may be used on WMA and private lands only during firearms and muzzleloader seasons for deer and bear.

3.4 On ~~DNR-owned~~ WMAs during periods when hunting is permitted, all firearms transported in vehicles must be unloaded and secured in a weapons case, or in the trunk of a vehicle or in a locked toolbox. On the Francis Marion Hunt Unit during deer hunts with dogs, loaded shotguns may be transported in vehicles. Any shotgun, centerfire rifle or rimfire rifle or pistol with a shell in the chamber or magazine or muzzleloader with a cap on the nipple or flintlock with powder in the flash pan is considered loaded.

3.5 No target practice is permitted on ~~Department-owned~~ WMA lands except in specifically designated areas.

3.6 On ~~State-owned, US Forest Service and other Federally-owned~~ WMA lands during still gun hunts for deer or hogs there shall be no hunting or shooting from, on or across any road open to vehicle traffic. During any deer or hog hunt there shall be no open season for hunting on any designated recreational trail on U.S Forest Service or S.C. Public Service Authority property.

## DEER

4.1 On ~~State-owned, US Forest Service and other Federally-owned~~ WMA lands with designated check stations, all deer bagged must be checked at a check station. Deer bagged too late for reporting one day must be reported the following day. Unless otherwise specified by the department, only bucks (male deer) may be taken on all WMA lands. Male deer must have antlers visible two (2) inches above the hairline to be legally bagged on "bucks only" hunts. Male deer with visible antlers of less than two (2) inches above the hairline must be taken only on either-sex days or pursuant to permits issued by the department. A point is any projection at least one inch long and longer than wide at some location at least one inch from the tip of the projection. Antler spread is the greatest outside measurement (main beam or points) on a plane perpendicular to the skull. On WMA lands, man drives for deer are permitted between 10:00 a.m. and 2:00 p.m. only, except that no man drives may be conducted on days designated by the department for taking deer of either sex. On WMA lands, drivers participating in man drives are prohibited from carrying or using weapons. On WMA lands, in Game Zones 1 and 2, man drives will be permitted on the last four (4) scheduled either-sex days. A

## 390 FINAL REGULATIONS

man drive is defined as an organized hunting technique involving two (2) or more individuals whereby an attempt is made to drive game animals from cover or habitat for the purpose of shooting, killing, or moving such animals toward other hunters.

4.2 Deer either-sex days for gun hunts are as follows:

Game Zone 1: The first ~~three~~ two Fridays and Saturdays in November.

~~Game Zones 2—6: (except Dillon, Horry and Marlboro counties) Saturday after October 3; every Friday and/or Saturday from October 11 to Thanksgiving day inclusive; Saturdays in December beginning 23 days after Thanksgiving day; and the last day of the open season.~~

~~Dillon, Horry and Marlboro counties: Saturday after October 3; beginning October 11, the next 2 Fridays and Saturdays, inclusive; and the Friday and Saturday before Thanksgiving.~~

Game Zones 2 - 6: Every Saturday from October 1 to the Saturday after Thanksgiving day inclusive; Saturdays in December beginning 23 days after Thanksgiving day; and the last day of the open season.

5.5 Dogs may be used to hunt bear on WMA lands in Game Zone 1 during the special party dog bear season.

6.1 On all WMA lands, no hunter may shoot from a vehicle except that ~~paraplegics and single or double amputees of the legs~~ mobility impaired hunters may take game from any stationary motor driven land conveyance or trailer which is operated in compliance with these rules. For purposes of this regulation, ~~paraplegic means an individual afflicted with paralysis in the lower half of the body with involvement of both legs, usually due to disease of or injury to the spinal cord.~~ mobility impaired means individuals who are permanently confined to a wheelchair, permanently require the use of two crutches, permanently require the use of a walker to walk, or persons with single or double leg amputations. Written confirmation of permanent impairment is required from a physician or qualifying agency.

6.2 On ~~Department-owned~~ WMA lands, motor driven land conveyances must be operated only on designated roads or trails. Unless otherwise specified, roads or trails which are closed by barricades and/or signs, either permanently or temporarily, are off limits to motor-driven land conveyances.

6.3 It is unlawful to obstruct travel routes on ~~Department-owned~~ WMA lands.

## VISIBLE COLOR CLOTHING

7.1 On ~~all State-owned, US Forest Service and other Federally-owned~~ WMA lands during any gun and muzzleloader hunting seasons for deer, bear and hogs, all hunters must wear either a hat, coat, or vest of solid visible international orange, except hunters for dove, turkey and duck are exempt from this requirement while hunting for those species.

## CAMPING

8.1 Camping is not permitted on ~~DNR-owned~~ WMA lands except in designated camp sites.

10.10 Impoundments on Bear Island, Donnelly, Samworth, Santee Coastal Reserve and Santee Delta WMAs are closed to all public access during the period 15 Oct.- 31 Jan. except during special hunts designated by the Department. All public access during the period 01 Feb.- Oct. 14 is limited to designated areas. On Bear Island WMA, Mathews' Canal is closed to all hunting from Nov. 1 – Feb. 15 beyond a point 0.8 mile from the confluence of Mathews' Canal with the South Edisto River.

10.16 Category II Designated Waterfowl Areas include Biedler Impoundment, Carr Creek (bounded by Samworth WMA), Little Carr Creek (bounded by Samworth WMA), Lake Cunningham, Russell Creek, Monticello Reservoir, Parr Reservoir, Duncan Creek, Dunaway, Dungannon, Enoree River, Moultrie, Hatchery, Hickory Top, Hickory Top Greentree Reservoir, Lancaster Reservoir, Turtle Island, Little Pee Dee River Complex (including Ervin Dargan, Horace Tilghman), Great Pee Dee River, Potato Creek Hatchery, Sampson Island Unit (Bear Island), Tyger River, Marsh, Wee Tee, Woodbury and Ditch Pond Waterfowl Management Areas. Hunting on Category II Designated Waterfowl Areas is in accordance with scheduled dates and times.

DESIGNATED WATERFOWL AREAS

Area	Open dates inclusive	Bag Limits
<u>Ditch Pond</u>	<u>Wed. AM only during regular season.</u>	<u>Federal Limits</u>
Sampson Island Unit (Bear Island)	Thurs. and Sat. am only during the regular season.	Federal Limits

10.21 On Enoree River, Dunaway, Duncan Creek and Tyger River Waterfowl Areas data cards are required for hunter access during scheduled waterfowl hunts. Completed data cards must be returned daily upon leaving the Enoree Waterfowl Area.

123-51. Turkey Hunting Rules and Seasons.

AREA	DATES	LIMIT	Other Restrictions
Webb-Palachucola WMA's	April 1 - May 1	2	<u>All hunters must pick up and return data cards at kiosk and display hangtags on vehicles</u>
Woodbury WMA	April 1 – May 1	2	Wed. <del>and</del> - Sat. Only
Hamilton Ridge WMA	April 1 - May 1	2	<del>Wed. Sat. Only.</del> <u>All hunters must pick up and return data cards at kiosk and display hangtags on vehicles</u>
<u>Aiken Gopher Tortoise HP WMA</u>	<u>April 1 – May 1</u>	<u>2</u>	

123-52. Deer Hunting on Private Lands in Game Zones 1 and 2 (50-11-310, 50-11-350, 50-11-390).

3. For Special Primitive Weapons Seasons, primitive weapons include bow and arrow and muzzle-loading shotguns (20 gauge or larger) and rifles (.36 caliber or larger) with open or peep sights or scopes, which use black powder or a black powder substitute that does not contain nitro-cellulose or nitro-glycerin components as the propellant charge. There are no restrictions on ignition systems (e.g. flintstone, percussion cap, shotgun primer, disk, electronic, etc.). ~~ignition at the breech must be by the old type percussion cap which fits on a nipple or by flintstone striking frizzen or a "disk" type ignition system. The use of in-line muzzleloaders and muzzleloaders utilizing a shotgun primer in a "disk" type ignition system is permitted.~~ During primitive

## **392 FINAL REGULATIONS**

weapons season, no revolving rifles are permitted. Crossbows may be used on WMA and private lands only during firearms and muzzleloader seasons for deer and bear.

### **Fiscal Impact Statement:**

This amendment of Regulations 123-40, 123-51 and 123-52 will result in increased public hunting opportunities which should generate additional State revenue through license sales. In addition, the local economy should benefit from sales of hunting supplies, food and overnight accommodations. Sales taxes on these items will also directly benefit government.

### **Statement of Rationale:**

Rationale for the formulation of these regulations is based on over 60 years of experience by SCDNR in establishing public hunting areas. New areas are evaluated on location, size, current wildlife presence, access and recreation use potential. Contractual agreements with the landowners provides guidelines for the use and management of the property. Wildlife Management Area agreements are on file with the Wildlife Management Section of the Department of Natural Resources, Room 267, Dennis Building, 1000 Assembly Street, Columbia.

Document No. 3125

### **DEPARTMENT OF PUBLIC SAFETY**

#### **CHAPTER 38**

Statutory Authority: 1976 Code Section 23-3-30(6)

Article 3, Subarticle 7. Driver Schools and Subarticle 9. Truck Driver Training Schools

### **Synopsis:**

The South Carolina Department of Public Safety is proposing to repeal Subarticles 7 & 9 of Article 3 of Chapter 38 of the Department's regulations. These regulations relate to driver training schools and commercial driver training schools. The Department of Motor Vehicles is updating these regulations and will be publishing new regulations under their regulation chapter.

### **Instructions:**

Repeal Subarticles 7 and 9 of Article 3 of Chapter 38.

### **Text:**

Repeal Subarticle 7 & 9 of Article 3 of Chapter 38.

### **Fiscal Impact Statement:**

There is no fiscal impact.

### **Statement of Rationale:**

The Department of Motor Vehicles is revising these regulations and republishing them under their new regulation Chapter.



Document No. 3124  
**PUBLIC SERVICE COMMISSION**  
CHAPTER 103  
Statutory Authority: 1976 Code Section 58-3-140

103-690. Designation of Eligible Telecommunications Carriers

**Synopsis:**

In Order No. 2006-71, the Commission granted the Office of Regulatory Staff's (ORS) Motion to initiate a rule-making proceeding to determine whether multiple ETCs should be authorized and to develop a single set of eligibility standards for Eligible Telecommunications Carrier (ETC) designation. The Commission held that a rule-making proceeding should be scheduled to examine the requirements and standards to be used by the Commission when evaluating applications for ETC status.

**Instructions:** Print regulations in accordance with directions given below to show most current date of revised regulations.

103-690 print as shown below

**Text:**

103-690. Designation of Eligible Telecommunications Carriers

A. Purpose.

1. This regulation defines the requirements for designation as an Eligible Telecommunications Carrier ("ETC") for the purpose of receiving federal universal service support, not state universal service support, pursuant to 47 U.S.C. § 214(e) of the Federal Telecommunications Act of 1996.

2. This regulation will ensure that the commission will only grant a particular application if doing so will further the goals and purposes of the federal high-cost universal service fund and the universal service fund provisions of Section 254 of the Telecommunications Act of 1996; specifically, that consumers in all regions of South Carolina, including those in rural, insular and high-cost areas will have access to telecommunications services comparable to those in urban areas of the state.

3. Notwithstanding the ETC applicant's regulatory status or the commission's jurisdiction over the applicant's regular operations, in seeking designation as an ETC, the applicant acknowledges the commission's authority and jurisdiction to impose such regulations on ETCs, including the applicant, as are in the public interest.

B. Definitions.

1. Cell Site. A geographic location where antennae and electronic communications equipment are placed to create a cell in a cellular network for the use of mobile phones. A cell site is composed of a tower or other elevated structure for mounting antennae, and one or more sets of transmitter/receivers, transceivers, digital signal processors, control electronics, and backup electrical power sources and sheltering.

2. Commission. The word commission in this regulation means the Public Service Commission of South Carolina.

3. Eligible Telecommunications Carrier (ETC). An ETC is a carrier as defined in 47 U.S.C. §214(e).

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4. Lifeline Service. Lifeline Service is a service as defined in 47 C.F.R. §54.401.
5. Link Up Service. Link Up Service is a service as defined in 47 C.F.R. §54.411.
6. ORS. The abbreviation ORS in this regulation means the Office of Regulatory Staff.

7. Wire Center. A geographic location of one or more local switching systems; a location where customer loops converge. References to the evaluation of service within a wire center, for purposes of this regulation, shall mean an evaluation of the quality of the services provided in that part of the licensee's service area served by a cell site in the event the applicant is a wireless service provider.

### C. Requirements for initial designation as an Eligible Telecommunications Carrier.

(a) The commission may upon its own motion or upon request, designate a common carrier that meets the requirements in this section, and the public interest standard set forth in subsection (b) of this section, as an ETC for a designated service area. ETCs shall offer services in compliance with 47 C.F.R. §54.101. Upon request and consistent with the public interest, convenience and necessity, the commission may, in the case of an area served by a rural telephone company, and shall, in the case of all other areas, designate more than one common carrier as an ETC for a service area designated by the commission. Before designating an additional ETC for an area served by a rural telephone company, the commission shall find that the designation is in the public interest. On or after the effective date of this rule, in order to be designated an eligible telecommunications carrier under 47 U.S.C. § 214(e)(2) of the Federal Telecommunications Act of 1996, any common carrier in its application filed with the commission and a copy provided to the ORS must provide the following information:

(1) (A) commit to provide service throughout its proposed designated service area to all customers making a reasonable request for service. Each applicant shall certify that it will (1) provide service on a timely basis to requesting customers within the applicant's service area where the applicant's network already passes the potential customer's premises; and (2) provide service within a reasonable period of time, if the potential customer is within the applicant's licensed service area but outside its existing network coverage, if service can be provided at reasonable cost by (a) modifying or replacing the requesting customer's equipment; (b) deploying a roof-mounted antenna or other equipment; (c) adjusting the nearest cell tower; (d) adjusting network or customer facilities; (e) reselling services from another carrier's facilities to provide service; or (f) employing, leasing or constructing an additional cell site, cell extender, repeater, or other similar equipment.

(B) submit a two-year plan that describes with specificity proposed improvements or upgrades to the applicant's network on a wire center-by-wire center basis, or on a cell site-by-cell site basis if the applicant is a wireless carrier throughout its proposed designated service area. Each applicant shall demonstrate:

1. How it plans to expand its network to ensure that unserved and underserved rural or high-cost areas will receive sufficient signal quality, that coverage or capacity will improve due to the receipt of high-cost support throughout the area for which the ETC seeks designation;
2. A detailed map of the coverage area before and after the improvements and in the case of a CMRS provider, a map identifying existing and proposed tower site locations;
3. The specific geographic areas where the improvements will be made;
4. The projected start date and completion date for each improvement;
5. The estimated amount of investment for each project that is funded by high-cost support;
6. A statement as to how all of the facilities funded by high-cost support are eligible for such support;
7. The estimated population that will be served as a result of the improvements;
8. If an applicant believes that service improvements in a particular wire center or on a particular cell site are not needed, it must explain its basis for this determination and demonstrate how funding will otherwise be used to further the provision of supported services in that area; and

9. A statement as to how the proposed improvements funded by universal service dollars would not otherwise occur absent the receipt of high-cost support and that such support will be used in addition to any expenses the ETC would normally incur.

(C) for carriers seeking certification in areas not eligible for High Cost Support from the USF, but seeking ETC designation for the purpose of participation in the Lifeline and Link Up programs, the following shall apply in lieu of paragraph (B) above: shall submit a two-year plan that describes the carrier's plans for advertising and outreach programs for identifying, qualifying, and enrolling eligible participants in the Lifeline and Link Up programs. All other provisions of this subsection shall apply.

(2) demonstrate its ability to remain functional in emergency situations, including a demonstration that it has a reasonable amount of back-up power to ensure functionality without an external power source, its ability to reroute traffic around damaged facilities, and its capability of managing traffic spikes resulting from emergency situations. The commission shall determine on a case-by-case basis whether a carrier has demonstrated its ability to remain functional in emergency situations.

(3) demonstrate that it will satisfy applicable consumer protection and service quality standards. A commitment by wireless applicants to comply with the Cellular Telecommunications and Internet Association's Consumer Code for Wireless Service will satisfy this requirement. Other commitments will be considered on a case-by-case basis.

(4) demonstrate that it offers a local usage plan comparable to the one offered by the incumbent LEC in the service areas for which it seeks designation.

(5) certify by affidavit signed by an officer of the company that the carrier acknowledges that the Federal Communications Commission may require it to provide equal access to long distance carriers in the event that no other eligible telecommunications carrier is providing equal access within the service area.

(6) certify by affidavit signed by an officer of the company that it does offer or will offer the services that are supported by the federal universal service support mechanisms by using its own facilities or a combination of its own facilities and resale of another carrier's services.

(7) certify by affidavit signed by an officer of the company that it does or will advertise in a media of general distribution the availability of such services, including lifeline services and the applicable charges.

(b) Public Interest Standard. Prior to designating an eligible telecommunications carrier pursuant to 47 U.S.C. § 214(e)(2), the commission must determine that such designation is in the public interest. In doing so, the commission shall consider, *inter alia*, the benefits of increased consumer choice, and the unique advantages and disadvantages of the applicant's service offering. In instances where an eligible telecommunications carrier applicant seeks designation below the study area level of a rural telephone company, the commission shall also conduct a creamskimming analysis that includes, but is not limited to, comparing the population density of each wire center in which the eligible telecommunications carrier applicant seeks designation against that of the wire centers in the study area in which the eligible telecommunications carrier applicant does not seek designation. The commission shall not designate a service area to an ETC that is smaller than an entire wire center.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

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### Statement of Rationale:

The purpose of 26 S.C. Code Ann. Regs. 103-690 is to create a regulation which governs the designation of eligible telecommunications carriers utilizing a set standard for review. There was no scientific or technical basis relied upon in the development of this regulation.

Document No. 3128  
**PUBLIC SERVICE COMMISSION**  
CHAPTER 103  
Statutory Authority: 1976 Code Section 58-3-140

103-300 et seq. Electric Systems and 103-400 et seq. Gas Systems

### Synopsis:

In 2004, the General Assembly passed Act No. 175 which restructured the Public Service Commission. This Act modified the structure of the Agency and its functions and created the Office of Regulatory Staff. Several duties of the Public Service Commission were transferred to the Office of Regulatory Staff on January 1, 2005. The purpose of the revisions to Regs. 103-300, et seq. (1976 & Supp. 2006) and Regs. 103-400, et seq. (1976 & Supp. 2006) of the Public Service Commission's regulations is to amend these regulations to conform to the new standards set out by Act 175 of 2004 and to make other changes consistent with federal law and current standards.

**Instructions:** Print regulations in accordance with directions given below to show most current date of revised regulations.

103-300	Print as amended and shown below
103-301	Print as amended and shown below
103-302	Print as amended and shown below
103-303	Print as amended and shown below
103-304	Print as amended and shown below
103-305	Print as amended and shown below
103-310	Print as amended and shown below
103-311	Print as amended and shown below
103-312	Print as amended and shown below
103-313	Print as amended and shown below
103-314	Print as amended and shown below
103-315	Print as amended and shown below
103-316	Delete this section
103-317	Print as amended and shown below
103-318	Print as amended and shown below
103-320	Print as amended and shown below
103-321	Print as amended and shown below
103-322	Print as amended and shown below
103-323	Print as amended and shown below
103-324	Print as amended and shown below
103-325	Leave as it currently exists
103-326	Leave as it currently exists
103-327	Print as amended and shown below
103-330	Print as amended and shown below
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103-373 Print as amended and shown below  
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103-412 Print as amended and shown below  
103-413 Print as amended and shown below  
103-414 Print as amended and shown below  
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103-416 Delete this section  
103-417 Print as amended and shown below  
103-418 Print as amended and shown below  
103-420 Print as amended and shown below  
103-421 Print as amended and shown below  
103-422 Print as amended and shown below

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103-423	Print as amended and shown below
103-424	Print as amended and shown below
103-425	Print as amended and shown below
103-426	Leave as it currently exists
103-430	Print as amended and shown below
103-431	Print as amended and shown below
103-432	Print as amended and shown below
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103-434	Leave as it currently exists
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103-472	Print as amended and shown below
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103-480	Leave as it currently exists
103-481	Leave as it currently exists
103-482	Print as amended and shown below
103-483	Leave as it currently exists
103-484	Delete this section
103-485	Print as amended and shown below
103-490	Print as amended and shown below
103-491	Print as amended and shown below
103-492	Print as amended and shown below
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103-494	Print as amended and shown below

**Text:**

**ARTICLE 3  
ELECTRIC SYSTEMS  
SUBARTICLE 1  
GENERAL PROVISIONS**

103-300. Authorization of Rules.

A. Sections 58-27-150 and 58-27-1910, Code of Laws of South Carolina, 1976, provides: "Rules and Regulations.--The commission may make such rules and regulations not inconsistent with law as may be proper in the exercises of its power or in the performance of its duties under this Chapter, all of which shall have the force of law."

In accordance with the above provisions, the Public Service Commission has adopted the following rules and regulations and fixed the following standards for electric service. All previous rules or standards are hereby revoked, annulled, and superseded.

B. The adoption of these rules shall in no way preclude the Public Service Commission from altering, amending, or revoking them in whole or in part, or from requiring any other or additional service, equipment, facility, or standard, either upon complaint, or upon its own motion, or upon the application of any utility. Furthermore, these rules shall not in any way relieve either the commission or the utilities of any duties under the laws of this State.

103-301. Application of Rules.

1. Jurisdiction. These rules shall apply to any person, firm, partnership, association, establishment or corporation (except municipalities or agents thereof, within their corporate limits, and any other exempt by South Carolina Statutes), which is now or may hereafter become engaged as an electric system as defined in 103-302(5), herein, in the business of furnishing electric current for domestic, commercial, or industrial customers within the State of South Carolina.

2. Purpose. The rules are intended to define good practice. They are intended to insure adequate and reasonable service. The electric systems shall assist the commission in the implementation of these rules and regulations.

3. Waiver of Rules. In any case where compliance with any of these rules and regulations introduces unusual difficulty or where circumstances indicate that a waiver of one or more rules or regulations is otherwise appropriate, such rule or regulation may be waived by the commission upon a finding by the commission that such waiver is not contrary to the public interest.

103-302. Definitions.

The following words and terms, when used in these rules and regulations, shall have the meaning indicated below.

1. Commission. The Public Service Commission of South Carolina.

2. Consolidated Political Subdivision. The term 'consolidated political subdivision' means a consolidated political subdivision existing pursuant to the Constitution of this State, and shall not be deemed a city, town, county, special purpose district, or other governmental unit merged thereto.

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3. Customer. Any person, firm, association, establishment, partnership, or corporation, or any agency of the Federal, State or local government, being supplied with electric service by an electrical utility under the jurisdiction of this commission.

4. Electric Supplier. The term 'electric supplier' means any electrical utility other than a municipality, and means any electric cooperative other than an electric cooperative engaged primarily in the business of furnishing electricity to other electric cooperatives for resale to other electric consumers, and any consolidated political subdivision owning or operating an electric plant or system for furnishing of electricity to the public for compensation.

5. Electric System. The term 'electric system' means any electrical utility, electric supplier, utility, electric cooperative, public utility district, governmental body or agency, including consolidated political subdivisions, or another person or corporation supplying electric service to the public to the extent covered by the applicable Sections of the S. C. Code of Laws.

6. Electrical Utility. The term 'electrical utility' includes municipalities to the extent of their business, property, rates, transactions, and operations outside the corporate limits of the municipality, or persons, associations, firms, establishments, partnerships and corporations, their lessees, assignees, trustees, receivers, or other successors in interest owning or operating in this State equipment or facilities for generating, transmitting, delivering or furnishing electricity for street, railway or other public uses or for the production of light, heat or power to or for the public for compensation; but it shall not include an electric cooperative or a consolidated political subdivision and shall not include a person, corporation, special purpose district or municipality furnishing electricity only to himself or itself, their resident employees or tenants when such current is not resold or used by others.

7. Municipality. The term 'municipality' when used in these Rules and Regulations includes a city, town, county, township and any other corporation existing, created or organized as a governmental unit under the Constitution or laws of this State except a 'Consolidated Political Subdivision'.

8. ORS. The South Carolina Office of Regulatory Staff.

9. Rate. The term 'rate' when used in these rules and regulations means and includes every compensation, charge, toll, rental and classification, or any of them, demanded, observed, charged, or collected by any electrical utility for any electric current or service offered by it to the public, and any rules, regulations, practices or contracts affecting any such compensation, charge, toll, rental or classification.

10. Utility. Every privately-owned corporation, firm or person furnishing or supplying electric service to the public, or any portion thereof, for compensation.

### 103-303. Authorization for Rates and Charges

A. No schedules of rates or contracts involving rates, under jurisdiction of the commission, differing from approved tariffs or rates shall be changed until after the proposed change has been approved by the commission.

B. All rates, tolls, charges, and contracts involving rates proposed to be put into effect by any electrical utility shall be first approved by this commission before they shall become effective, unless they are exempt from such approval by statute, order of the commission, or other provision of law.

C. No rates, tolls, charges nor service of any electrical utility under the regulation of this commission shall be deemed approved nor consented to by mere filing of schedules or other evidence thereof in the offices of the commission, unless such proposed adjustment is made in accordance with tariff provisions which have previously been approved by the commission.



D. Any change in rates or charges affecting classifications of rates and services by electric cooperatives shall be provided to the ORS and filed with the commission and subject to approval in accordance with S. C. Code Ann., § 58-27-840.

#### 103-304. Territory and Certificates.

No electrical utility supplying electric service to the public shall hereafter begin the construction or operation of any electric facilities, or of any extension thereof, without first obtaining from the commission a certificate that public convenience and necessity requires or will require such construction or operation; such certificate to be granted only after notice to the ORS, other interested electric systems and to the public, and after due hearing; provided, however, that this regulation shall not be construed to require any such electrical utility to secure a certificate for any extension within a municipality or district within which it has heretofore lawfully commenced operations, or for an extension within or to territory already served by it, necessary in the ordinary course of its business, or for an extension into territory contiguous to that already occupied by it and not receiving similar service from another electrical utility, but if any electric system in constructing or extending its lines, plant or system unreasonably interferes, or is about to unreasonably interfere, with the service or the system of any other electric system, the commission may make such order and prescribe such terms and conditions in harmony with this regulation as are just and reasonable.

1. Rural Territorial Act. The commission has assigned all areas outside municipal limits, and more than 300 feet from the lines (as defined in Section 58-27-610(3) of the South Carolina Code of Laws), as such lines existed on the dates of assignments, of any electric supplier (except some territory which was left unassigned to any supplier), and no electric supplier shall construct lines and equipment except as provided by S.C. Code of Laws, Sections 58-27-620(2); 58-27-620(4); 58-27-620(6); 58-27-650; and 58-27-660(1), into territory assigned to another supplier without prior approval of the commission; and no electric supplier shall construct permanent lines and equipment into any territory left unassigned by the commission pursuant to S.C. Code Ann., Section 58-27-640 without prior notice to the commission and the ORS filed within a reasonable period of time prior to the date of actual construction of permanent lines, which notice shall include a map of the area showing existing facilities, location of the customer, and the proposed route of the permanent line, and a written certification that those electric suppliers furnishing electric service in any areas contiguous to the unassigned territory have been provided a copy of the notice of construction of facilities as filed with the commission and provided to the ORS, and all such facilities providing electric service shall be constructed in accordance with good utility practices and all other applicable provisions of the S.C. Code of Laws, as amended.

2. Utility Facility Siting and Environmental Protection Act. No electric system subject to the jurisdiction of the commission shall begin the construction and/or operation of any transmission line with a designed voltage of 125 KV or more or the construction and/or operation of a generating station of more than 75 megawatts, except a hydroelectric generating facility, before receiving a certificate of Environmental Compatibility and Public Convenience and Necessity in accordance with Sections 58-33-10 et seq., of the Code of Laws of South Carolina, 1976.

#### 103-305. Utilities Rules and Regulations.

Each electrical utility shall adopt Rules, Regulations, Practices, Service Requirements, Terms and Conditions, etc., as may be necessary in the operation of such utility which shall be provided to the ORS and subject to review and order of the commission, unless otherwise specified.

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### SUBARTICLE 2 RECORDS AND REPORTS

#### 103-310. Location of Records and Reports.

All records required by these rules, or necessary for the administration thereof, shall be kept within this State, unless otherwise authorized by the commission. These records shall be available for examination by the ORS or its authorized representatives at all reasonable hours.

#### 103-311. Retention of Records.

Unless otherwise specified by the commission or by regulation, or commission Order governing specific activities, all records required by these Rules and Regulations shall be preserved for a minimum of two years.

#### 103-312. Data to be Filed with the Commission and Provided to the ORS.

1. Annual Report. Each electrical utility operating in this State shall file an Annual Report with the commission and the ORS giving such information as the commission may direct. This Annual Report shall include the same information included in FERC Form 1; thus, the electrical utility can file its FERC Form 1 with the commission and the ORS or an Annual Report with the equivalent information.

2. Current Information and Documents. The electrical utility shall file with the commission and provide to the ORS the following documents and information.

##### A. Tariff

1. A copy of each electric system's schedule of rates and charges for service, together with applicable riders.

2. A copy of each electric system's Rules and Regulations, or Terms and Conditions describing each electric system's policies and practices in rendering service. These rules shall include a listing of available voltages and service characteristics.

3. Tariffs must be filed with the office of the chief clerk of the commission and, on that same day, provided to the Executive Director of the ORS.

##### B. Customer Bill

A copy of each type of bill form used in billing for electric service must be provided to the ORS.

##### C. Operating Area Map

1. Suitable maps and "one-line diagrams" shall be made available to the ORS showing the size, character and location of each main transmission circuit and generating stations and main substations.

2. When an application for a Certificate of Public Convenience and Necessity is made by an electrical utility, a section of map showing the proposed line extension shall accompany such application.

##### D. Authorized Representative

The electrical utility shall advise the commission and the ORS of the name, address and telephone number of the person, or persons, to be contacted in connection with:

a. General management duties.

- b. Customer relations (complaints).
- c. Engineering and/or Operations.
- d. Meter tests and repairs.
- e. Emergencies during non-office hours.

E. Contract Forms

A copy of the electrical utility's electric power contract form, and special electric power contract forms for customer service is to be provided to the ORS.

103-313. Inspection of Utility Plant.

A. Each utility shall, upon request of the commission or the ORS, provide the ORS with a statement regarding the condition and adequacy of its plant, equipment, facilities and service in such form as the commission or the ORS may require.

B. Each utility shall keep sufficient records to give evidence of compliance with its inspection programs as set forth in subarticles 5 and 6 of these rules and regulations.

103-314. Interruption of Service.

Each electrical utility shall keep a record of any condition resulting in any interruption of service affecting its entire system or major division thereof, or any major community, or an important division of such a community, including a statement of the time, duration, and cause of any such interruption. The commission and the ORS are to be notified of any such interruptions as soon as practicable after it comes to the attention of the utility and a complete report made to the commission and the ORS after restoration of service if such interruption is for more than six hours duration.

103-315. Incidents.

A. Each electrical utility shall, as soon as practicable, report to the ORS each material incident in connection with the operation of the electrical utility's property, facilities, or service including, but not limited to: (a) serious injury or death of any person; (b) evacuation; and (c) damage to a customer's or third party's property that will require, in the electrical utility's commercially reasonable estimation, repair costs in excess of \$15,000. Such first report shall later be supplemented within thirty (30) days by a statement of the cause and details of the incident, based on the facts then known to the electrical utility, and the measures, if any, that have been taken to reduce the risk of similar incidents in the future.

B. Each electrical utility shall establish and follow procedures for analyzing, reporting, and minimizing the possibilities of any future incidents.

103-316 is deleted.

103-317. Meter History Records.

Each electrical utility shall maintain records of the following data, where applicable, for each billing meter for so long as such meter is in possession of the electrical utility and for at least twelve months thereafter.

- a. Date of Purchase.

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- b. The complete identification-manufacturer, number, type, size, capacity, multiplier and/or constants.
- c. The dates of installation and removal from service, together with the location, unless otherwise directed by the commission.

### 103-318. Meter, Test, Records and Reports.

Each electrical utility shall maintain records of tests made of any billing meter. The record of the meter test shall be maintained for a minimum of three years after the meter's retirement. Test records shall include the following:

- a. The date and reason for the test.
- b. The reading of the billing meter before making any test.
- c. Information necessary for identifying the meter.
- d. The result of the test, together with all data taken at the time of the test in sufficiently complete form to permit convenient checking of the methods employed and the calculations.
- e. The accuracy "as found" at "Light Load" and at "Full Load", or "Test Amperes".
- f. The accuracy "as left" at "Light Load" and at "Full Load", or "Test Amperes".

## **SUBARTICLE 3 METERS**

### 103-320. Meter Requirements.

Service shall be measured by meters furnished by the electrical utility unless otherwise ordered by the commission, and such meters shall maintain the degree of accuracy as set forth in 103-323.

### 103-321. Meter Reading.

Unless extenuating circumstances prevent, meters shall be read and bills rendered on a monthly basis not less than twenty-eight days nor more than thirty-four days.

### 103-322. Meter Reading Data.

The Meter Reading Data maintained by the electrical utility shall include:

- a. Customer's name, service address and rate schedule designation.
- b. Identifying number and/or description of the meter(s).
- c. Meter readings.
- d. If the reading has been estimated.
- e. Location of meter or special reading instructions, if applicable.

### 103-323. Meter Accuracy and Condition.

A. Creeping: No watt-hour meter which registers on "no load" when the applied voltage is less than one hundred and ten (110%) percent of standard service voltage shall be placed in service or allowed to remain in service.

B. No watt-hour meter shall be placed in service which is in any way defective to impair its performance, or which has incorrect constants or which has not been tested individually or under a sample meter testing plan approved by the commission for accuracy of measurements and adjusted, as specified in 103-373(2), if necessary, to meet these requirements:

Average error not over 0.5% plus or minus;

Error at "Full Load" (test amperes) not over 0.5% plus or minus;

Error at "Light Load" not over 1.0% plus or minus.

103-324. Meter Seal.

Immediately after the pre-installation or field test of a meter, the manufacturer or the electrical utility shall affix a seal or locking device in order to avoid tampering. The meter installation shall be sealed or locked to help prevent tampering or theft of current.

103-325. Location of Meters.

103-326. Change in Character of Service.

103-327. Master Metering.

A. All service delivered to new multi-occupancy residential premises at which units of such premises are separately rented, leased or owned shall be delivered by an electrical utility on the basis of individual meter measurement for each dwelling.

B. Any exception to the provisions of paragraph A., supra, must be approved by the commission upon its determination that individual metering to such premises is impractical and unreasonable.

C. Service to structures for which permits were issued or construction started prior to January 23, 1981, shall not be affected by the provisions contained herein.

D. Commercial premises with master metered service established prior to October 31, 1980, which are later converted to residential use shall not be affected by provisions contained herein.

#### **SUBARTICLE 4 CUSTOMER RELATIONS**

103-330. Customer Information.

Each electrical utility shall:

a. Maintain up-to-date maps, plans, or records of its entire transmission and distribution systems, with such other information as may be necessary to enable the electrical utility to advise prospective customers, and others entitled to the information, as to the facilities available for serving customers within its operating area.

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- b. Provide to each new residential and small commercial customer, within sixty days of application for service, a clear and concise explanation of the available rate schedules for the class of service for which the customer makes application for service.
- c. Provide to each residential and small commercial customer to whom more than one rate schedule is reasonably available a clear and concise summary of the existing rate schedules applicable to the customer's class of service at least once a year.
- d. Notify each affected customer of any proposed adjustment in rates and charges, excluding adjustment of base rates for fuel costs within sixty days of the date of the filing of such adjustment or as otherwise directed by the commission.
- e. Provide to each customer, upon request, a clear and concise statement of the actual consumption of electrical energy by such customer for the previous twelve months.
- f. Post a notice in a conspicuous place in each office of the electrical utility where applications for service are received, informing the public that copies of the rate schedules and rules relating to the service of the electrical utility, as filed with and approved by the commission, are available for inspection.
- g. Upon request, inform its customers as to the method of reading meters, as to billing procedures and shall assist customers in selecting the most economical rate schedule applicable and method of metering the service, except as otherwise provided for by the commission.
- h. Provide adequate means (telephone, etc.) whereby each customer can contact the electrical utility or its authorized representative at all hours in cases of emergency or unscheduled interruptions of service.
- i. Upon request, give its customers such information and assistance as is reasonable in order that customers may secure safe and efficient service.
- j. Notify any person making a complaint recorded pursuant to 103-345 that the electrical utility is under the jurisdiction of the commission and the customer may notify the ORS of the complaint.

### 103-331. Customer Deposits.

A. Each electrical utility may require from any customer or from any prospective customer, a deposit intended to guarantee payment of bills for service, if any of the following conditions exist:

1. The customer's past payment record to an electrical utility shows delinquent payment practice, i.e., customer has had two consecutive thirty-day arrears, or more than two non-consecutive thirty-day arrears in the past twenty-four months, or
2. A new customer cannot demonstrate that he is a satisfactory credit risk by appropriate means including, but not limited to, a letter of good credit from an electrical utility, references which may be quickly and inexpensively checked by the Company or cannot furnish an acceptable cosigner or guarantor on the same system within the State of South Carolina to guarantee payment up to the amount of the maximum deposit, or
3. A customer has no deposit and presently is delinquent in payments, i.e., has had two consecutive thirty-day arrears, or more than two non-consecutive thirty-day arrears in the past twenty-four months, or
4. A customer has had his service terminated for non-payment or fraudulent use.

B. Each electrical utility shall inform each prospective customer of the provisions contained in this rule.

## 103-332. Amount of Deposits.

A. A maximum deposit may be required up to an amount equal to an estimated two months (sixty days) bill for a new customer or a maximum deposit may be required up to an amount equal to the total actual bills of the highest two consecutive months based on the experience of the preceding twelve months or portion of the year, if on a seasonal basis.

B. All deposits may be subject to review based on the actual experience of the customer. The amount of the deposit may be adjusted upward or downward to reflect the actual billing experience and payment habits of the customer.

C. A schedule of deposits based upon an analysis of sixty days' usage for categories of customers may be utilized in determining deposits required by the electrical utility upon being provided to the ORS and filed and approved by the commission.

D. Special offerings may be exempt as determined by the commission; i.e., subdivision lighting, outdoor lighting, etc.

## 103-333. Interest on Deposits.

A. Simple interest on deposits at the current effective interest rate per annum prescribed by order of the Public Service Commission shall be paid by the electrical utility to each customer required to make such deposit for the time it is held by the electrical utility, provided that no interest need be paid unless the deposit is held longer than six months.

B. The interest shall be accrued annually and payment of such interest shall be made to the customer at least every two years or less and at the time the deposit is returned.

C. The deposit shall cease to draw interest on the date it is returned, on the date service is terminated, or on the date notice is sent to the customer's last known address that the deposit is no longer required.

## 103-334. Deposit Records.

## 103-335. Deposit Receipt.

## 103-336. Deposit Retention.

Deposit shall be refunded completely with interest after two years unless the customer has had two consecutive thirty-day arrears, or more than two non-consecutive thirty-day arrears, in the past twenty-four months.

## 103-337. Unclaimed Deposits.

A record of each unclaimed deposit must be maintained for at least one year, during which time the electrical utility shall make a reasonable effort to return the deposit. Unclaimed deposits, together with accrued interest, shall be turned over to the S. C. State Treasurer as prescribed by state law.

## 103-338. Deposit Credit.

Where a customer has been required to make a guarantee deposit, this shall not relieve the customer of the obligation to pay the service bills when due. Where such deposit has been made and service has been discontinued for reason of non-payment of bill, or otherwise, an electrical utility shall apply the deposit of such customer toward the discharge of such account and shall, as soon thereafter as practicable, refund the customer any excess of the deposit. If, however, the customer whose service has been disconnected for non-

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payment, pays the full amount billed within seventy-two hours after service has been disconnected and applies for reconnection, the electrical utility may not charge an additional deposit except under the provisions of regulation 103-332.

### 103-339. Customer Billing.

The electrical utility shall bill each customer as promptly as possible following the reading of the meter and render a receipt of payment upon request.

1. New Service. Meters shall be read at the initiation and termination of any service and billing shall be based thereon.

2. Bill Forms. The bill shall show:

a. The reading of the meter at the beginning and at the end of the period for which the bill is rendered.

b. The date on which the meter was read, and the date of billing and the latest date on which it may be paid without incurring a penalty, and the method of calculating such penalty.

c. The number and kind of units metered.

d. The applicable rate schedule, or identification of the applicable rate schedule. If the actual rates are not shown, the bill shall carry a statement to the effect that the applicable rate schedule will be furnished on request.

e. Any estimated usage shall be clearly marked with the word "estimate" or "estimated bill".

f. Any conversions from meter reading units to billing units or any information necessary to determine billing units from recording or other devices, or any other factors used in determining the bill. In lieu of such information on the bill, a statement must be on the bill advising that such information can be obtained by contacting the electrical utility's local office.

g. Amount for electrical usage (base rate).

h. Amount of South Carolina Sales Tax (dollars and cents).

i. Total amount due.

j. Number of days for which bill is rendered or beginning and ending dates for the billing period.

3. Late Payment Charges. A charge of no more than one and one-half percent (1 1/2 %) may be added to any unpaid balance not paid within twenty-five days of the billing date to cover the cost of collection and carrying accounts in arrears. This method of late-payment charge will be made in lieu of any other penalty.

4. Payment. The electrical utility, at its option for good cause, may refuse to accept a check, debit card, credit card or other electronic payment tendered as payment on a customer's account. "Good cause" must be justified by an electrical utility by evidencing a credit history problem or by evidencing insufficient funds of the utility customer or applicant.

5. Charges for Discontinuance and Reconnection. Whenever service is turned off for violation of rules and regulations, nonpayment of bills, or fraudulent use of service, the electrical utility may make reasonable charges, to be approved by the commission, for the cost incurred in discontinuing the service and reconnection and require payment for service billed and for service used which has not previously been billed.



6. Estimated Bills. Each electrical utility shall not send a customer an estimated bill, except for a good cause, where the meter could not be read or was improperly registering. In no instance will more than one estimated bill be rendered within a sixty-day period, unless otherwise agreed to by the customer.

#### 103-340. Adjustment of Bills.

If it is found that an electrical utility has directly or indirectly, by any device whatsoever, demanded, charged, collected or received from any customer a greater or lesser compensation for any service rendered or to be rendered by such electrical utility than that prescribed in the schedules of such electrical utility applicable thereto, then filed in the manner provided in Chapter 27 of Title 58 of the South Carolina Code of Laws; or if it is found that any customer has received or accepted any service from an electrical utility for a compensation greater or lesser than that prescribed in such schedules; or if, for any reason, billing error has resulted in a greater or lesser charge than that incurred by the customer for the actual service rendered, then the method of adjustment for such overcharge or undercharge shall be as provided by the following:

1. Fast or Slow Meters. If the overcharge or undercharge is the result of a fast or slow meter, then the method of compensation shall be as follows:

a. In case of a disputed account, involving the accuracy of a meter, such meter shall be tested upon request of the customer, as specified in 103-370(2).

b. In the event that the meter so tested is found to have an error in registration of more than two (2) per cent, the bills will be increased or decreased accordingly, but in no case shall such a correction be made for more than sixty days.

2. Customer Willfully Overcharged. If the electrical utility has willfully overcharged any customer, except as provided for in 1 of this rule then the method of adjustment shall be as provided in the S. C. Code Ann. § 58-27-960, and § 58-27-2410 et seq. (1976).

3. Customer Inadvertently Overcharged. If the electrical utility has inadvertently overcharged a customer as a result of a misapplied schedule, an error in reading the meter, a skipped meter reading, or any other human or machine error, except as provided in 1 of this rule, the electrical utility shall, at the customer's option, credit or refund the excess amount paid by that customer or credit the amount billed as provided by the following:

a. If the interval during which the customer was overcharged can be determined, then the electrical utility shall credit or refund the excess amount charged during that entire interval provided that the applicable statute of limitations shall not be exceeded.

b. If the interval during which the customer was overcharged cannot be determined then the electrical utility shall credit or refund the excess amount charged during the twelve-month period preceding the date when the billing error was discovered.

c. If the exact usage and/or demand incurred by the customer during the billing periods subject to adjustment cannot be determined, then the refund shall be based on an appropriate estimated usage and/or demand.

4. Customer Undercharged Due to Willfully Misleading Company. If the electrical utility has undercharged any customer as a result of a fraudulent or willfully misleading action of that customer, or any such action by any person (other than the employees or agents of the electrical utility), such as tampering with, or bypassing the meter when it is evident that such tampering or bypassing occurred during the residency of that customer, or if it is evident that a customer has knowledge of being undercharged without notifying the electrical utility as such, then notwithstanding 1 of this rule, the electrical utility shall recover the deficient amount provided as follows:

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a. If the interval during which the customer was undercharged can be determined, then the electrical utility shall collect the deficient amount incurred during that entire interval, provided that the applicable statute of limitations is not exceeded.

b. If the interval during which the customer was undercharged cannot be determined, then the electrical utility shall collect the deficient amount incurred during the twelve-month period preceding the date when the billing error was discovered by the electrical utility.

c. If the usage and/or demand incurred by that customer during the billing periods subject to adjustment cannot be determined, then the adjustment shall be based on an appropriate estimated usage and/or demand.

d. If the metering equipment has been removed or damaged, then the electrical utility shall collect the estimated cost of repairing and/or replacing such equipment.

5. Equal Payment Plans. An electrical utility may provide payment plans wherein the charge for each billing period is the estimated total annual bill divided by the number of billing periods prescribed by the plan. The difference between the actual and estimated annual bill is to be resolved by one payment at the end of the equal payment plan year, unless otherwise approved by the commission. However, any incorrect billing under equal payment plans shall be subject to this rule.

6. Customer Undercharged Due to Human or Machine Error. If the electrical utility has undercharged any customer as a result of a misapplied schedule, an error in reading the meter, a skipped meter reading, or any human or machine error, except as provided in 1, 2 and 4 of this rule then the electrical utility may recover the deficient amount as provided as follows:

a. If the interval during which a consumer having a demand of less than 50 KW was undercharged can be determined, then the electrical utility may collect the deficient amount incurred during that entire interval up to a maximum period of six months. For a consumer having a demand of 50 KW or greater, the maximum period shall be twelve months.

b. If the interval during which a consumer was undercharged cannot be determined, then the electrical utility may collect the deficient amount incurred during the six-month period preceding the date when the billing error was discovered by the electrical utility. For a consumer having a demand of 50 KW or greater, the maximum period shall be twelve months.

c. The customer shall be allowed to pay the deficient amount, in equal installments added to the regular monthly bills, over the same number of billing periods which occurred during the interval the customer was subject to pay the deficient amount.

d. If the usage and/or demand incurred by that person during the billing periods subject to adjustment cannot be determined, then the adjustment shall be based on an appropriate estimated usage and/or demand.

### 103-341. Applications for Service.

1. Method. Applications for service may be oral or in writing.

2. Obligation. The applicant shall, at the option of the electrical utility, be required to sign a service agreement or a contract. In the absence of such service agreement or contract, the accepted application shall constitute a contract between the electrical utility and the applicant, obligating the applicant to pay for service in accordance with the electrical utility's tariff or rate schedule currently on file with the commission and the ORS, and to comply with the commission's and the electrical utility's rules and regulations governing service supplied by the electrical utility.

3. Termination. When a customer desires to have his service terminated, he must notify the electrical utility; such notification may be oral or in writing. The electrical utility shall be allowed a reasonable period of time after the receipt of such a notice to take a final reading of the meter and to discontinue service.

103-342. Reasons For Denial or Discontinuance of Service.

Unless otherwise stated, a customer shall be allowed a reasonable time in which to correct any discrepancy which may cause discontinued service. Service may be denied or discontinued for any of the following reasons:

- a. Without notice in the event of a condition determined by the electrical utility to be hazardous or dangerous.
- b. Without notice in the event of customer's use of equipment in such a manner as to adversely affect the electrical utility's service to others.
- c. Without notice in the event of unauthorized or fraudulent use, excluding tampering, of the electrical utility's service, i.e.:
  - 1. Misrepresentation of the customer's identity.
  - 2. For reconnection of service by customer who has had service discontinued for violation of and/or noncompliance with the commission's regulation 103-342, et seq.
- d. Tampering.

After the customer has applied for and/or received service from the electrical utility, he shall make every reasonable effort to prevent tampering with the meter and service drop serving his premises. A customer shall notify the electrical utility, as soon as possible, of any tampering with, damage to, or removal of any equipment.

Tampering with meters or with conductors carrying unmeasured current and unauthorized breaking of electrical utility's seals is prohibited by law and shall not be tolerated by the electrical utility. Such meter tampering shall include but shall not be limited to, unassigned meters, altered meters, upside down meters, or the attachment to a meter or distribution wire of a device, mechanism or wire which would permit the use of unmeasured electricity. Should the electrical utility find that the meter, conductors, or seals have been tampered with, the electrical utility shall give notice to the customer of possible discontinuance of service. Service may be continued or reconnected consistent with the following:

- 1. A customer can stop discontinuance of service or have service reconnected by paying a reasonable charge for an inspection (to insure proper operating conditions), a reasonable reconnect fee, and charges to compensate for any damage to the electrical utility's facilities.
- 2. A customer's bill may be adjusted to reflect normal usage should any tampering reflect other than normal meter readings and the customer's bill may include the establishment of a deposit in accordance with the commission's regulation 103-332 et seq.

Nothing herein shall prevent the electrical utility from instituting appropriate legal actions for violations and/or noncompliance with the commission's regulations.

- e. For failure of the customer to fulfill his contractual obligations for service and/or facilities subject to regulation by the commission.
- f. For failure of the customer to permit the electrical utility reasonable access to its equipment.

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g. For nonpayment of bill for service rendered provided that the electrical utility has made reasonable efforts to effect collection and has complied with the provisions of regulation 103-352.

h. For failure of the customer to provide the electrical utility with a deposit as authorized by regulation 103-331.

i. For failure of the customer to furnish permits, certificates, and rights-of-way, as necessary to obtain service, or in the event such permissions are withdrawn or terminated.

j. For failure of the customer to comply with reasonable restrictions on the electrical utility's service, provided that notice has been given to the customer and that written notice has been furnished to the commission and the ORS.

k. No electrical utility shall be required to furnish its service or to continue its service to any applicant who, at the time of such application, is indebted or any member of his household is indebted, under an undisputed bill to such electrical utility for service previously furnished such applicant or furnished any other member of the applicant's household. However, for the purposes of this regulation, the electrical utility may not consider any indebtedness which was incurred by the applicant or any member of his household more than six years prior to the time of application.

l. The electrical utility may terminate a customer's service should the customer be in arrears on an account for service at another premise.

m. For the reason that the customer's use of the electrical utility's service conflicts with, or violates orders, ordinances or laws of the State or any subdivision thereof, or of the commission.

103-343. Insufficient Reason for Denying Service.

103-344. Right of Access.

Authorized agents of the electrical utility shall have the right of access to premises supplied with electric service, at reasonable hours, for the purpose of reading meters, maintenance, repair, and for any other purpose which is proper and necessary in the conduct of the electrical utility's business. Such agents shall, upon request of a customer, produce proper identification and inform the customer of the purpose of necessary access to the occupied premises.

103-345. Complaints.

A. Complaints concerning the charges, practices, facilities, or service of the electrical utility shall be investigated promptly, thoroughly, and professionally. The electrical utility shall keep such records of customer complaints to include the name and address of the complainant, the date and character of the complaint, and the adjustment or disposal made thereof as will enable it to review and analyze its procedures and actions.

B. When the ORS has notified the electrical utility that a complaint has been received concerning a specific account, the electrical utility shall refrain from discontinuing the service of that account until the ORS's investigation is completed and the results have been received by the electrical utility. Service shall not be discontinued if the complainant requests in writing a hearing before the commission within fifteen days of the ORS mailing the results of the ORS investigation, along with a copy of regulation 103-345, to the complainant. If the complainant does not file the complaint with the commission within fifteen days, service can be discontinued.

103-346. Rates for Service, Rate Schedules, Rules and Regulations.

Copies of all schedules of rates for service, forms of contracts for service, charges for service connections and of all rules and regulations covering the relations of customer and electrical utility, shall be provided to the ORS and the commission by each electrical utility and approved by the commission in the office of the commission. Complete schedule, contract forms, rules and regulations, etc., as filed with and approved by the commission, shall also be on file in the local offices of the electrical utility and shall be available for inspection by the public.

103-347. System Which Electrical Utility Must Maintain.

Each electrical utility, unless specifically relieved by the commission from such obligation, shall operate and maintain in a safe, efficient and proper condition all of the facilities and equipment used in connection with the regulation, measurement and electric service to any customer up to and including the point of delivery into the facilities owned by that customer.

103-348. System Extensions.

Each electrical utility shall be obligated to comply with all requests for service in accordance with its schedules of rates and service rules and regulations on file with the commission and the ORS within areas assigned to it by the commission and within three-hundred feet of its lines as they existed on the date of assignment.

103-349. Replacement of Meters.

Whenever a customer requests the replacement of an electric meter on his premises, such request shall be treated as a request for the test on such meter, and, as such, shall fall under the provisions of regulation 103-373.

103-350. Service Entrance Changes.

Whenever a customer requests the electrical utility to relocate the electrical utility's service entrance, the electrical utility may require reasonable charges to cover the cost incurred to be paid prior to relocation.

103-351. Temporary Service.

103-352. Procedures for Termination of Service.

Prior to the termination of electric service pursuant to R.103-342 e.-m., the following procedures shall be employed by the electrical utility.

a. Not less than ten (10) days prior to termination of service, the electrical utility shall mail a notice of termination to the affected customer. The notice of termination of service shall include, as a minimum, the following information:

1. Address, telephone number and working house of the person(s) to be contacted by the customer for the arrangement of a personal interview with an employee of the electrical utility with the authority to accept full payment or make other payment arrangements.

2. The total amount owed by the customer for electrical services rendered, the date and amount of the last payment and the date by which the customer must either pay in full the amount outstanding or make satisfactory arrangements for payment by installments of such amount.

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### 3. Special Needs Customers.

a. A statement that service to a residential customer who qualifies as a special needs account customer shall only be terminated in accordance with S.C. Code Ann. §58-27-2510 *et. seq.*, as amended. All electrical utilities shall publish their procedures for termination of service on their websites.

b. The statement that service to a residential customer during the months of December through March will not be terminated where such customer, or a member of his household at the premises to which service is rendered, can furnish to the utility, no less than (3) days prior to termination of service or to the terminating crew at time of termination, a certificate on a form provided by the utility and signed by a licensed physician, that termination of electric service would be especially dangerous to such person's health. Such certificate must be signed by the customer and state that such customer is unable to pay by installments. A certification shall expire on the thirty-first day from the date of execution by the physician. Such certification may be renewed no more than three (3) times for an additional thirty (30) day period each. Upon renewal of the certification, the electrical utility shall advise the customer that he may wish to call the local social service agency to determine what public or private assistance may be available to him.

4. The availability of investigation and review of any unresolved dispute by the ORS Staff and include the ORS's toll free telephone number.

b. Not more than two business days prior to termination of service, the electrical utility shall make reasonable efforts either by telephone or in person to contact the customers that are subject to termination of service to notify him that his service is subject to termination for non-payment. Alternatively, not more than three business days prior to termination of service, the electrical utility shall notify the customer by mail that he is subject to termination of service for non-payment. The electrical utility shall maintain records of the efforts made to contact such customers. Termination of service may be delayed in case of inclement weather, emergencies or operational conflicts.

c. The electrical utility shall provide for the arrangement of a deferred payment plan to enable a residential customer to make payment by installments where such customer is unable to pay the amount due for electrical service. The deferred payment plan shall require the affected customer to maintain his account current and pay not less than 1/6 of the outstanding balance for a period not to exceed six months. The outstanding balance may include the late payment charge authorized by regulation 103-339(3). Service to such customer shall not be terminated unless the electrical utility has informed the customer that such deferred payment plan is available. Any agreement to extend or defer a payment cut off date by more than five work days is a deferred payment plan. If a customer fails to conform to the terms and conditions of such deferred payment plan, the electrical utility may terminate service upon three days written notice, if personally delivered, or upon five days notice by mail.

d. If a residential customer informs the electrical utility that he is unable to make payment in full on his account or to make arrangements for the satisfaction of the balance of his account through a deferred payment plan, the electrical utility shall advise the customer that he may wish to call the local social service agency to determine what public or private assistance may be available to the customer.

e. The electrical utility shall maintain a record of all deferred payment plans established with customer subject to termination for a period of two years.

f. The electrical utility shall provide a copy of the termination notice to any third party identified by the customer upon establishment of the service account or at any time thereafter.

g. Electric service maybe terminated only on Monday through Thursday between the hours of 8:00 a.m. and 4:00 p.m., unless provisions have been made for the availability of the acceptance of payment and the reconnection of service. Electric service may not be terminated on the day preceding any day on which the

electric utility's collection offices are closed, unless provisions have been made for the availability of the acceptance of payment and the reconnection of service. All employees of electrical utilities assigned to terminate service shall be authorized to accept payment from customers subject to termination of service or in lieu thereof, at the electrical utility's option, allow such customer at least one full working day beyond the initial date set for termination the opportunity to make satisfactory arrangements on the account at the offices of the electrical utility; provided, however, that in certain areas where it has been determined by the electrical utility that the safety of its employees warrants it, those employees shall not be required to accept payments from customers subject to termination.

## SUBARTICLE 5 ENGINEERING

103-360. Requirements for Good Engineering Practice.

103-361. Acceptable Standards.

Unless otherwise specified by the commission, after hearing if requested, the electrical utility shall use the applicable provisions of the latest edition, Part 2, of the "National Electrical Safety Code", as minimum standards of accepted good engineering practice.

103-362. Acceptable References.

Part 2 of the "National Electrical Safety Code" (latest edition), is considered by the commission to be an acceptable reference.

New additions to Part 2 of the National Electrical Safety Code shall become effective six months after the date of final approval by the American National Standards Institute unless a request for a hearing has been granted by the commission.

103-363. Adequacy of Service.

1. Operation of Electrical Utility.

A. Standard Frequency--Each electrical utility supplying alternating current shall adopt a standard frequency of 60 Hertz, suitability of which has been determined by the commission, and shall maintain this frequency within 15 seconds plus or minus of standard at all times during which service is supplied; provided, however, that momentary variations of frequency of more than fifteen seconds which are clearly due to no lack of proper equipment or reasonable care on the part of the electrical utility, shall not be construed a violation of this rule.

B. Standard Voltage--Each electrical utility shall adopt standard average voltage for its different classes of constant voltage service. This voltage maintained at the electrical utility mains shall at all times be reasonably constant, and the variations in voltage from the average shall in no case exceed the limitations as prescribed below.

The voltage variations for service should not exceed 10% above or below the standard average voltage.

A greater variation of voltage than specified above may be allowed when service is supplied directly from the transmission line or in a limited or extended area where customers are widely scattered, and the business done does not justify close voltage regulation. In such cases, the best voltage regulation should be provided that is practicable under the circumstances.

Variations in the voltage in excess of those specified, caused by the operation of power apparatus on customers' premises which necessarily requires large starting current by the action of the elements, and by

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infrequent and unavoidable fluctuations of short duration due to station operation, shall not be construed a violation of this rule.

C. Special Equipment--Where a separate transformer or other additional electrical utility standard equipment or capacity is to be used to eliminate fluctuations or other effects detrimental to the quality of service to other customers the electrical utility may make a reasonable charge for the transformer, equipment and line capacity required. In lieu of the above, the electrical utility may require the customer to either discontinue the operation of the equipment causing the disturbance or install the necessary motor generator set or other apparatus to eliminate the disturbance detrimental to the service of other customers.

D. When only one set of overhead service wires (service drop) is required to connect a residential or small non-residential customers to electric service mains, the electrical utility shall provide such service drop including the attachments at the point where service drop wires are attached to customer's premises, which point shall be the point nearest the electrical utility's electric circuit to be used in supplying service to the customer. The customer shall provide "service entrance facilities" including meter loop, entrance switch or circuit breaker, and service entrance conductors complying with rules of the electrical utility from the point of attachment of the electrical utility's service drop on the customer's premises. The customer shall provide a substantial point of attachment for service drop wires. This provision does not apply to large non-residential or industrial customers' connections as they vary so greatly that each requires special consideration. When service to the customer requires individual electrical utility company facilities (such as oil circuit breakers, transformers, etc.), to be located on customer's premises on the ground or in a vault, the customer shall provide a suitable, adequate and readily accessible space for such facilities and shall insure access at all times. Electrical utility property installed on a customer's premises shall remain property of the electrical utility and may be removed for testing, repairs, changes in service or other conditions justifying change or removal.

E. For substations erected to serve an individual customer, the electrical utility shall provide either suitable supports on the substation structure or a suitable structure outside and immediately adjacent to its substation property line to which the customer shall extend his facilities. The customer in addition shall install, or cause to be installed, all facilities beyond the point of delivery thus established. When required by the electrical utility, the customer shall install one set of main disconnecting switches which shall control all of the customer's load other than a fire pump circuit, if any.

F. The meter installation of the electrical utility may include enclosures that may be locked by the electrical utility and not accessible to the customer.

### 2. Voltage Surveys and Records.

A. Each electrical utility shall provide itself with suitable indicating and/or recording voltmeters, and shall make a sufficient number of voltage tests periodically so as to insure compliance with the voltage requirements cited above. These tests shall be made at appropriate points upon the electrical utility's distribution lines.

B. Each electrical utility shall have installed at its generating stations suitable instruments to indicate the frequency and voltage of the service rendered from that station, together with the load or loads demanded in each such station. Each electrical utility shall keep a station record at attended stations which shall show: (1) the time of starting and shutting down the generating units; (2) readings of such instruments as necessary; and (3) all interruptions to service affecting bus bars or distribution systems, with the time, duration, and the cause (when known) of the interruption.



**SUBARTICLE 6  
INSPECTIONS AND TESTS**

103-370. Electrical Utility Inspection and Tests.

Each electrical utility shall make such tests as are prescribed under these rules with such frequency and in such manner and at such places as is herein provided or requested by the ORS or as may be approved or ordered by the commission.

1. All electric meters shall be tested and calibrated under the applicable periodic or sample testing plan as prescribed by the American National Standards Institute (ANSI) Standard C12 – Code of Electricity Meters. Results from sample-tested meters shall be communicated to the ORS on an annual basis.

2. Meter Testing on Request of Customers.

A. Each electrical utility shall, at any time (when requested in writing by a customer) upon reasonable notice, test the accuracy of the meter in use by him.

B. No deposit or payment shall be required from the customer for such meter test except when a customer requests a meter test within one year after date of installation or the last previous test of a meter, in which case he shall be required upon request by the electrical utility to deposit the estimated cost of the test, but not to exceed \$15.00 without approval of the commission. The amount so deposited with the electrical utility shall be refunded or credited to the customer, if the meter is found, when tested, to register more than 2% fast or slow, otherwise the deposit shall be retained by the electrical utility.

C. A customer may request to be present when the electrical utility conducts the test on his meter, or if he desires, may send a representative appointed by him. The electrical utility shall honor such request.

D. A report giving the name of the customer requesting the test; the date of the request; the location of the premises where the meter has been installed; the type, make, size, and serial number of the meter; the date of removal; the date tested; and the result of the test shall be kept by the electrical utility.

103-371. ORS Inspections and Tests.

The ORS shall make tests of meters as follows:

a. Upon written request to the commission or ORS by a customer or an electrical utility, a test will be made of the customer's meter as soon as practicable.

b. On receipt of such request, the ORS shall notify the electrical utility, and the electrical utility shall not knowingly remove or adjust the meter until instructed by the ORS. The ORS shall supervise the test of the meter, using the standard approved by the commission with such standard being compared with the electrical utility's standard. The results of the test shall be made available to the customer.

c. The customer shall be notified of the test in sufficient time to allow the customer or the customer's representative to be present.

d. The ORS shall make a written report of the results of the test to the customer and to the electrical utility.

103-372. Facilities and Equipment for Testing.

A. Each electrical utility furnishing metered electric service shall, unless specifically excused by the commission, provide and have available such meter laboratory, standard meters, instruments and facilities as

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may be necessary to make the tests required by these rules or other orders of the commission or as requested by the ORS, together with such portable indicating electrical testing instruments, watt-hour testing meters, and facilities of suitable type and range for testing service watt-hour meters, voltmeters and other electrical equipment, used in its operation, as may be deemed necessary and satisfactory to the commission or the ORS.

B. All portable indicating electrical testing instruments such as voltmeters, ammeters and wattmeters, when in regular use for testing purposes, shall be checked against suitable reference standards whenever used in testing service meters of the electrical utility.

C. When the size of the electrical utility is such that it is more economical to contract for meter testing, such procedure is authorized provided the contract work is done by a recognized meter testing laboratory.

### 103-373. Test Procedures and Accuracies.

#### 1. Method of Determining Average Error of Meters.

A. Field testing the average error of a service watt-hour meter shall be determined as follows: The error at Light Load, here defined as approximately 10% of the rated capacity (Test Amperes) of the meter, shall be determined by taking the average of at least two errors determined from as many separate tests on the same Light Load, which error must agree within one-half percent (1/2 %).

In the same manner, the error at Full Load, here defined as approximately the rated capacity (Test Amperes) of the meter, shall be determined. The average error of the meter shall then be determined by taking the average error at Light Load plus four times the error at Full Load (Test Amperes) and dividing this sum by five, proper consideration being taken of the sign of the two errors.

B. Meter Shop Testing--When an electronic test board is used, the average error of a watt-hour meter shall be determined as follows: The error at Light Load, here defined as approximately 10% of the rated capacity (Test Amperes) of the meter, shall be determined. The error at Full Load, here defined as approximately the rated capacity of the meter or Test Amperes, shall be determined. The average error of the meter shall then be determined by taking the error at Light Load plus four times the error at Full Load (Test Amperes) and dividing this sum by five, proper consideration being taken of the sign of the two errors.

#### 2. Meter Accuracy.

A. Creeping: No watt-hour meter which registers on "no load" when the applied voltage is less than one hundred and ten (110%) percent of standard service voltage shall be placed in service or allowed to remain in service.

B. Initial Accuracy Requirements--No watt-hour meter shall be in service which is in any way defective to impair its performance, or which has incorrect constants, or which has not been tested individually or under a sample meter testing plan approved by the commission for accuracy of measurement and adjusted, if necessary, to meet these requirements at unity power factor:

Average error not over 0.5% plus or minus;

Error at Full Load (Test Amperes) not over 0.5% plus or minus;

Error at Light Load not over 1.0% plus or minus.

C. Adjustment After Test--Whenever a test made by an electrical utility, contract vendor by or on behalf of the electrical utility or by the ORS on a service watt-hour meter connected in its permanent position in place of

service shows that the average error is greater than that specified allowed above, the meter shall be adjusted to bring the average error within the specified initial accuracy limits, or the meter shall be replaced.

3. Test Instruments.

Each electrical utility shall own and maintain such standard watt-hour meters, such instrument transformers, voltmeters, ammeters and such other instruments necessary in maintaining the accuracy of its standards used in testing the meters serving its customers.

**SUBARTICLE 7  
STANDARDS AND QUALITY OF SERVICE**

103-380. Quality of Service.

103-381. Interruption of Service.

103-382. Restrictions on the Use of Service.

A. The electrical utility may impose reasonable restrictions on the use of electric service during periods of shortage of supply, excessive demand or other difficulty which jeopardizes the supply of service to any group of customers.

B. The electrical utility may impose reasonable restrictions on the use of electric service by customers who create conditions which prevent the electrical utility from supplying satisfactory service to that customer, or to other customers.

C. If an electrical utility finds that it is necessary to restrict the use of electric service, it shall notify its customers and give the commission written notice, except in emergencies, before such restriction becomes effective. Such notification shall specify:

1. The reason for restriction.
2. The nature and extent of the restriction, i.e., amount and time of use by certain classes of customers, etc.
3. The date such restriction is to go into effect.
4. The probable date of termination of such restriction.

D. The electrical utility shall not be required to furnish service to customers whose equipment is operated in such manner as to cause unreasonable voltage fluctuations on the electrical utility's circuits, which fluctuations are detrimental to service to other customers.

103-383. Special Tests.

**SUBARTICLE 8  
SAFETY**

103-390. Acceptable Standards.

As criteria of accepted good safety practice of the electrical utility, the commission shall use the applicable provisions of the standards listed in regulation 103-361.

103-391. Protective Measures.

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A. Each electrical utility shall exercise reasonable care to reduce the hazards to which its employees, its customers and the general public may be subjected.

B. The electrical utility shall give reasonable assistance to the ORS in the investigation of the cause of incidents and shall give reasonable assistance to the commission and the ORS in the determination of suitable means of preventing incidents.

C. Each electrical utility shall maintain a summary of all reportable incidents arising from its operations. (See regulation 103-315.)

103-392. Safety Programs.

### **ARTICLE 4 GAS SYSTEMS SUBARTICLE 1 GENERAL**

103-400. Authorization of Rules.

A. Section 58-5-210 of the Code of Laws of South Carolina, 1976, provides: "That the Public Service Commission is hereby, to the extent granted, vested with power and jurisdiction to supervise and regulate the rates and service of every 'Public Utility' in this State as defined in this Act, together with the power, after hearing, to ascertain and fix such just and reasonable standards, classifications, regulations, practices and measurements of service to be furnished, imposed, observed and followed by every public utility in this State, and the State hereby asserts its rights to regulate the rates and services of every 'Public Utility' as herein defined."

In accordance with the above provisions, the Public Service Commission has adopted the following Rules and Regulations and fixed the following standards for gas service. All previous rules or standards are hereby revoked, annulled, and superseded.

B. The adoption of these rules shall in no way preclude the Public Service Commission from altering, amending or revoking them in whole or in part, or from requiring any other or additional service, equipment, facility or standard, either upon complaint or upon its own motion, or upon the application of any utility.

Furthermore, these rules shall not in any way relieve the commission, the Office of Regulatory Staff, or the utilities of any duties under the laws of this State.

103-401. Application of Rules.

1. Jurisdiction. These rules shall apply to any person, firm, partnership, association, establishment, or corporation which is now or may hereafter become engaged as a public utility in the business of furnishing gas to any gas customer within the State of South Carolina, except where municipalities or agents thereof, and/or any gas authorities are specifically exempted by statute.

2. Purpose. The rules are intended to define good practice. They are intended to insure adequate and reasonable service. The utilities shall assist the commission in the implementation of these rules and regulations.

3. Waiver of Rules. In any case where compliance with any of these rules and regulations introduces unusual difficulty or where circumstances indicate that a waiver of one or more rules or regulations is otherwise appropriate, such rules or regulations may be waived by the commission upon a finding by the commission that such waiver is not contrary to the public interest.

103-402. Definitions.

The following words and terms, when used in these rules, shall have the meaning indicated:

1. Commission. "Commission" means the Public Service Commission of South Carolina.
2. Consolidated Political Subdivision. A "consolidated political subdivision" means that it exists pursuant to the Constitution of this State, and shall not be deemed a city, town, county, special purpose district or other governmental unit merged thereinto.
3. Customer. "Customer" means any person, firm, association, establishment, partnership or corporation, or any agency of the Federal, State, or local government, being supplied with gas service by a gas utility under the jurisdiction of this commission.
4. Gas. "Gas" or "Natural Gas" means either natural gas unmixed, or any mixture of natural and manufactured gas, including but not limited to, synthetic natural gas and liquefied petroleum.
5. Gas Service. "Gas Service" means those functions performed by a gas utility for its customers, including the purchase and/or manufacture of gas, storage of gas, transportation and delivery of gas to the customer.
6. Gas System. "Gas System" includes any gas utilities operating within this State, including gas authorities, municipalities, public service districts and other political subdivisions of this State insofar as they are within the jurisdiction of the commission for regulation of safety standards and conditions, pursuant to S. C. Code Ann. § 58-5-920(f) (1976).
7. Gas Utility. "Gas Utility" includes every privately-owned corporation, firm or person furnishing or supplying gas service to the public, or any portion thereof, for compensation. Provided, however, this term shall not include any gas utility owned or operated by any municipality or agency thereof; nor shall it include any gas utility owned or operated by any gas authority specifically exempted by statute from the jurisdiction of the commission.
8. Municipality. "Municipality" includes a city, town, county, township and any other corporation existing, created or organized as a governmental unit under the Constitution and Laws of this State.
9. ORS. "ORS" means the Office of Regulatory Staff.
10. PHMSA. Pipeline and Hazardous Materials Safety Administration of the United States Department of Transportation ("DOT").
11. Rate. "Rate" when used in these Rules and Regulations means and includes every compensation charge, toll, rental, and classification, or any of them, demanded, observed, charged or collected by any gas utility for any gas service offered by it to the public, and any rules, regulations, practices or contracts affecting any such compensation, charge, toll, rental or classification.

103-403. Authorization for Rates and Charges.

A. All rates, tolls and charges proposed to be put into effect by any gas utility shall be first approved by the commission before they shall become effective, unless they are exempt from such approval by statute, Order of this commission, or other provision of law.

B. No schedule of rates, tolls, or charges under jurisdiction of the commission, differing from the approved tariffs or rates, shall be changed until after proposed change has been approved by the commission.

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C. No rates, tolls, charges, nor service of any gas utility shall be deemed approved nor consented to by mere filing of schedules or other evidence thereof in the offices of the commission, unless such proposed adjustment is made in accordance with tariff provisions which have previously been approved by the commission.

D. All contracts between any industrial customer and any gas utility which establish or adjust rates for that industrial customer may become effective as of the dates of the contracts unless disapproved or modified by the commission in the public interest. Such contracts shall be provided to the ORS and filed with the commission within seven (7) days of execution.

### 103-404. Territory and Certificates.

A. No public utility supplying gas to the public shall hereafter begin the construction or operation of any gas facility, or of any extension thereof, without first obtaining from the commission a certificate that public convenience and necessity requires or will require such construction or operation; such certificate to be granted only after notice to ORS, other interested gas utilities and to the public, and after due hearing; provided, however, that this regulation shall not be construed to require any such gas utility to secure a certificate for any extension within any municipality or district within which it has heretofore lawfully commenced operations, or for an extension within or to territory already served by it, necessary in the ordinary course of its business, or for an extension into territory contiguous to that already occupied by it and not receiving similar service from another gas utility; but if any gas utility in constructing or extending its lines, plant or facilities unreasonably interferes, or is about to unreasonably interfere, with the service or system of any other gas utility, the commission may make such order and prescribe such terms and conditions in harmony with this regulation as are just and reasonable.

B. The term "public utilities supplying gas to the public" shall include all utilities supplying gas to the public, including natural gas and manufactured gas when such manufactured gas is used to supplement flowing gas supply.

### 103-405. Utility Rules and Regulations.

Each gas utility shall adopt such rules, regulations, practices, service requirements, terms and conditions, etc. as may be necessary in the operation of gas service to its customers which shall be provided to the ORS and filed with and subject to review and order of the commission, unless otherwise specified.

## **SUBARTICLE 2 RECORDS AND REPORTS**

### 103-410. Location of Records and Reports.

All records required by these rules or necessary for the administration thereof, shall be kept within this State, unless otherwise authorized by the commission. These records shall be available for examination by the ORS at all reasonable hours.

### 103-411. Retention of Records.

1. Retention Period. Unless otherwise specified by the commission or by regulations governing specified activities, all records required by these rules and regulations shall be preserved for two years.

2. Test and Inspection Records. A complete record shall be kept of all tests and inspections made under these rules as to the quality or condition of service which it renders.

3. Contents of Test Records. All records of tests shall contain complete information concerning the test, including the date, hour, and place where the test was made; the name of the person making the test and the result.

103-412. Data to be Filed with the Commission and Provided to the ORS.

1. Annual Report. Each gas utility operating in this State shall make an annual report to the commission and ORS giving such information as the commission may direct. This Annual Report shall include the same information included in FERC Form 2; thus, the gas utility can file its FERC Form 2 with the commission and the ORS or an Annual Report with the equivalent information.

2. Current Information and Documents. The gas utilities shall file with the commission and provide to the ORS the following documents and information.

2.1. Tariff. A copy of the gas utility's tariff which shall include:

A. A copy of each schedule of rates for service, together with applicable riders.

B. A copy of the gas utility's rules or terms and conditions, describing the gas utility's policies and practices in rendering jurisdictional gas service. These rules shall include:

1. The minimum and maximum heating value of the gas in BTU's per cubic foot.

2. A list of the classes of items which the gas utility furnishes and maintains on the customer's premises, such as service pipe, meters, regulators, vents and shutoff valves.

3. A statement indicating the minimum number of days allowed for payment of the gross amount of the customer's bill before service will be discontinued for non-payment.

4. A statement indicating the volumetric measurement base to which all sales of gas at other than standard delivery pressure are corrected.

C. Tariffs must be filed with the office of the Chief Clerk of the commission and, on that same day, provided to the Executive Director of the ORS.

2.2. Customer Bill. A copy of each type of bill form used in billing for gas service must be provided to the ORS.

2.3. Operating Area Map. A map showing the gas systems operating area. This map shall be revised as necessary and made available to the ORS upon request. The map should show:

a. Gas production plant.

b. Principal storage facilities.

c. Transmission lines and principal mains by size and valves located thereon.

d. System metering (supply) points.

e. State boundary crossings.

f. Certified area and/or territory served.

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g. Names of all communities (post offices) served.

2.4. Authorized Representative. The gas utility shall advise the commission and ORS of the name, title, address and telephone number of the person or persons who should be contacted in connection with:

- a. General management duties.
- b. Customer relations (complaints).
- c. Engineering and/or operations.
- d. Meter tests and repairs.
- e. Emergencies during non-office hours.

2.5. Contract Forms. A copy of the gas utility's gas service contract forms, and special gas service contract forms shall be provided to the ORS.

2.6. Pipeline Safety. All gas systems subject to pipeline safety regulation shall file with the commission and provide to the ORS those reports, policies and procedures required by the Federal Pipeline Safety Regulations: Minimum Safety Standards for the Transportation of Natural Gas and Other Gas, 49 C.F.R., as amended from time to time, to include, but not limited to, the following:

- a. Inspection and maintenance manual.
- b. Emergency plan.
- c. Welders. Listing of welders and proof of qualifications.

2.7. New Construction. All gas systems subject to pipeline safety regulation shall notify the commission and the ORS of any construction projects meeting either of the criteria below:

- A. Projects resulting in a cost of \$500,000 or more, whether steel, plastic, or other materials are installed or;
- B. Projects involving 25,000 feet of piping or more, whether steel, plastic, or other material(s) are utilized.

### 103-413. Inspection of Gas Systems.

A. Each gas system shall, upon request of the commission or ORS, provide to the ORS a statement regarding the condition and adequacy of its plant, equipment, facilities and service in such form as the commission or ORS may require.

B. Each gas system shall keep sufficient records to give evidence of compliance with its inspection program.

### 103-414. Interruption of Service.

Each gas utility shall keep a record of any condition resulting in any interruption of service affecting its entire system or major division thereof, or any major community or any important division, consisting of at least fifty customers, of a community, including a statement of the time, duration and cause of such interruption. The commission and ORS are to be notified by telephone of any such interruption as soon as practicable after it comes to the attention of the gas utility and a complete written report made to the commission and ORS after restoration of service, if such interruption is more than six hours in duration.



## 103-415. Incidents.

A. Each gas system shall, as soon as possible, report to the ORS each incident occurring wherein there exist either: (a) serious injury or death of any person; (b) property damage in excess of \$5,000, in the gas system's commercially reasonable estimation, including the gas system's cost of lost gas exiting the gas system's lines to a customer's meter and the expense to make repairs to its facilities or property; or (c) an event that is significant in the judgment of the gas system.

B. Each gas system shall establish and follow procedures for analyzing, reporting and minimizing the possibilities of any future incidents.

103-416 is deleted.

## 103-417. Meter History.

Each gas utility shall maintain records of the following data, where applicable, for each billing meter for so long as such meter is in possession of the gas utility and for at least twelve months thereafter.

- a. Date of purchase.
- b. The complete identification--manufacturer, number, type, size, capacity, multiplier, and constants.
- c. The current and last previous locations, and the dates of installation at and removal from service at such locations.
- d. Repairs.

## 103-418. Meter Test Records and Reports.

A. Each gas utility shall maintain records of at least the last two tests made of any billing meter. The record of the meter test made at time of the meter's retirement shall be maintained for a minimum of two years. Test records shall include the following:

1. The date and reason for the test.
2. The reading of the billing meter before making any test.
3. The accuracy "as found" at check and open rated flow (up to 10,000 cfh).
4. The accuracy "as left" at check and open rated flow (up to 10,000 cfh).
5. In the event test of the meter is made by using a test meter or a flow prover, the gas utility shall retain all data taken at the time of the test in sufficiently complete form to permit the convenient checking of the test methods and the calculations.

B. Whenever any gas service meter is tested the original test record shall be preserved, including the information necessary for identifying the meter, the reason for making the test, the reading of the meter upon removal from service, and the result of the test, together with all data taken at the time of the test in sufficiently complete form to permit convenient checking of the methods employed and the calculations.

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### SUBARTICLE 3 METERS

#### 103-420. Meter Requirements.

1. General. Service shall be measured by meters furnished by the gas utility unless otherwise authorized by the commission, and such meters shall maintain the degree of accuracy as set forth in regulation 103-423.
2. Measurement. Where applicable, each gas meter shall indicate clearly the unit of gas registered by such meter. Where gas is metered under high pressure, or where the quantity is determined by calculation from recording devices, the gas utility shall, when requested, supply the customer with such information as will make clear the method by which the quantity is determined.

#### 103-421. Meter Reading.

Unless extenuating circumstances prevent, meters shall be read and bills rendered on a monthly basis of not less than twenty-eight days nor more than thirty-four days.

#### 103-422. Meter Reading Data.

The meter reading data maintained by the gas utility shall include:

- a. Customer's name and service address.
- b. Identifying number and/or description of the meter(s).
- c. Meter Readings.
- d. If the reading has been estimated.
- e. Location of meter on premises, or special reading instructions, if applicable.

#### 103-423. Meter Accuracy and Condition.

- A. Every gas meter, whether new, repaired, or removed from service, shall be in good order before being installed for the use of any customer and shall be correct to within the limits prescribed in regulation 103-475(5).
- B. Care shall be taken to insure that every gas meter being transported or stored to install or test for the use of any customer is handled in a manner that will not impair the performance of such meter.

#### 103-424. Meter Seal.

Immediately after the pre-installation tests or field tests of a billing meter or other billing device, a seal or locking device shall be affixed or other means provided, where practical, designed to discourage or reveal tampering or theft of gas.

#### 103-425. Configuration and Location of Meter.

- A. No customer's meter shall be configured and/or installed in any location where it may reasonably be expected to be exposed to damage, impairment or in any unduly dirty or inaccessible location.
- B. Outdoor meters shall be used where practicable.

C. Each customer shall provide and maintain at the customer's expense a suitable and convenient place, agreeable to the gas system, for the location of meters, where the meter will be readily accessible at any reasonable hour for the purpose of reading, testing, repairing, etc., and such other appliances owned by the gas system and placed on the premises of the customers shall be placed as to be readily accessible at such times as are necessary, and the authorized agent of the gas system shall have authority to visit such meters and appurtenances at such times as are necessary in the conduct of the business of the gas system.

103-426. Change in Character of Service.

#### SUBARTICLE 4 CUSTOMER RELATIONS

103-430. Customer Information.

Each gas utility shall:

- a. Maintain up-to-date maps, plans, or records of its entire transmission and distribution systems, with such other information as may be necessary to enable the gas utility to advise prospective customers, and others entitled to the information, as to the facilities available for serving customers within its operating area.
- b. Notify each affected customer in writing, as prescribed by the commission, of any proposed change in rates and charges. Unless the commission orders otherwise, this notice requirement shall not apply to Purchased Gas Adjustments, Curtailment Adjustments, and Exploration Adjustments. Certification that the above notice requirement has been met shall be furnished to the commission and ORS by the gas utility.
- c. Post a notice in a conspicuous place in each office of the gas utility where applications for service are received, informing the public that copies of the rate schedules and rules relating to the service of the gas utility, as approved by the commission, are available for inspection at the gas utility.
- d. Upon request, inform its customers as to the method of reading meters, as to billing procedures, and shall assist customers in selecting the most economical rate schedule applicable and method of metering the service, except as otherwise provided for by the commission.
- e. Each gas system shall provide adequate means (telephone, etc.) whereby each customer can contact the gas system or authorized representative at all hours in cases of emergency or unscheduled interruptions of service.
- f. Each gas utility shall, upon request, give its customers such information and assistance as is reasonable and proper in order that customers may secure safe and efficient service.
- g. Notify any customer making a complaint recorded pursuant to regulation 103-445, that the gas utility is under the jurisdiction of the commission and the customer may notify the commission and ORS of his complaint.
- h. Notify each affected customer of the possibility and degree of anticipated seasonal natural gas curtailments. Such notification shall be sent by the gas utility to its customers as soon as the gas utility becomes aware of the possible imposition of any curtailment. The ORS shall be informed by the gas utility whenever such notification has been given to its customers.

103-431. Customer Deposits.

A. Each gas utility may require from any customer or from any prospective customer, a deposit intended to guarantee payment of bills for service, if any of the following conditions exist:

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1. The customer's past payment record to a gas utility shows delinquent payment practice, i.e., customer has had two consecutive thirty-day arrears, or more than two non-consecutive thirty-day arrears in the past twenty-four months, or

2. A new customer cannot demonstrate that he is a satisfactory credit risk by appropriate means including, but not limited to, letters of good credit from a utility, or references which may be quickly and inexpensively checked by the Company or cannot furnish an acceptable cosigner or guarantor on the same system within the state of South Carolina to guarantee payment, up to the amount of the maximum deposit, or

3. A customer has no deposit and presently is delinquent in payments, i.e., has had two consecutive thirty-day arrears, or more than two non-consecutive thirty-day arrears in the past- twenty-four months, or

4. A customer has had his service terminated for non-payment or fraudulent use.

B. Each utility shall inform each prospective customer of the provisions contained in (A) of this rule.

### 103-432. Amount of Deposit.

A. A maximum deposit may be required up to an amount equal to an estimated two months (sixty days) bill for a new customer or a maximum deposit may be required up to an amount equal to the total actual bills of the highest two consecutive months based on the experience of the preceding twelve months or portion of the year, if on a seasonal basis.

B. All deposits may be subject to review based on the actual experience of the customer. The amount of the deposit may be adjusted upward or downward to reflect the actual billing experience and payment habits of the customer.

C. A schedule of deposits based upon an analysis of sixty days usage for categories of customers may be required by the company upon being provided to the ORS and filed and approved by the commission.

D. Special offerings may be exempt as determined by the commission.

### 103-433. Interest on Deposits.

A. Simple interest on deposits at the rate of the current effective interest rate per annum prescribed by Order of the South Carolina Public Service Commission shall be paid by the gas utility to each customer required to make such deposit for the time it is held by the gas utility, provided that no interest need to be paid unless the deposit is held longer than six months.

B. The interest shall be accrued annually and payment of such interest shall be made to the customer every two years or less and at the time the deposit is returned.

C. The deposit shall cease to draw interest on the date it is returned, on the date service is terminated, or on the date notice is sent to the customer's last known address that the deposit is no longer required.

### 103-434. Deposit Records.

### 103-435. Deposit Receipt.

## 103-436. Deposit Retention.

Deposits shall be refunded completely with interest after two years unless the customer has had two consecutive thirty-day arrears, or more than two non-consecutive thirty-day arrears, in the past twenty-four months.

## 103-437. Unclaimed Deposit.

A record of each unclaimed deposit must be maintained for at least one year, during which time the gas utility shall make a reasonable effort to return the deposit. Unclaimed deposits, together with accrued interest, shall be turned over to the South Carolina State Treasurer as prescribed by state law.

## 103-438. Deposit Credit.

Where a customer has been required to make a guarantee deposit, this shall not relieve the customer of the obligation to pay the service bills when due. Where such deposit has been made and service has been discontinued for reason of non-payment of bill or otherwise, a gas utility shall apply the deposit of such customer toward the discharge of such account and shall as soon thereafter as practicable, refund the customer any excess of the deposit. If, however, the customer whose service has been disconnected for non-payment, pays the full amount billed within seventy-two hours after service has been disconnected and applies for reconnection, the gas utility may not charge an additional deposit except under the provisions of regulation 103-432.

## 103-439. Customer Billing.

The gas utility shall bill each customer as promptly as practicable following the reading of the meter and render a receipt of payment upon request.

1. New Service. Meters shall be read at the initiation and termination of any service and billing shall be based thereon.

2. Bill Forms. The bill shall show:

a. The reading of the meter at the beginning and at the end of the period for which the bill is rendered.

b. The date on which the meter was read, and the date of billing and the latest date on which it may be paid without incurring a penalty and the method of calculating such penalty.

c. The number and kind of units metered.

d. The applicable rate schedule, or identification of the applicable rate schedule. If the actual rates are not shown, the bill should carry a statement to the effect that the applicable rate schedule will be furnished on request.

e. Any estimated usage shall be clearly marked with the word "estimate" or "estimated bill".

f. Any conversions from meter reading units to billing units or any information necessary to determine billing units from recording or other devices, or any other factors, such as BTU adjustments, used in determining the bill. In lieu of such information on the bill, a statement must be on the bill advising that such information can be obtained by contacting the gas utility's local office.

g. Amount for gas usage.

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h. Amount of South Carolina Sales Tax (dollars and cents).

i. Total amount due.

j. Number of days for which bill is rendered or beginning and ending dates for the billing period.

3. Late Payment Charges. A charge of no more than one and one-half percent (1 1/2 %) may be added to any unpaid balance not paid within twenty-five days of the billing date to cover the cost of collection and carrying accounts in arrears. This method of late-payment charge will be made in lieu of any other penalty.

4. Payment. The gas utility, at its option for good cause, may refuse to accept a check, debit card, credit card or other electronic payment tendered as payment on a customer's account. "Good cause" must be justified by a gas utility by evidencing a credit history problem or by evidencing insufficient funds of the utility customer or applicant.

5. Charges for Discontinuance and Reconnection. Whenever service is turned off for violation of rules or regulations, non-payment of bills or fraudulent use of service, the gas utility may make a reasonable charge, to be approved by the commission, for the cost incurred in discontinuing the service and reconnection and require payment for service billed and for service used which has not previously been billed.

6. Estimated Bills. Each gas utility shall not send a customer an estimated bill except for good cause where the meter could not be read or was improperly registering. No more than one estimated bill shall be rendered within a sixty day period, unless otherwise agreed to by the customer.

### 103-440. Adjustment of Bills.

If it is found that a gas utility has directly or indirectly, by any device whatsoever, demanded, charged, collected or received from any customer a greater or less compensation for any service rendered or to be rendered by such gas utility than that prescribed in the schedules of such gas utility applicable, thereto then filed in the manner provided in Title 58 of the South Carolina Code of Laws or if it is found that any customer has received or accepted any service from a gas utility for a compensation greater or less than that prescribed in such schedules; or if, for any reason, billing error has resulted in a greater or lesser charge than that incurred by the customer for the actual service rendered, then the method of adjustment for such overcharge or undercharge shall be as provided by the following:

1. Fast or Slow Meters. If the overcharge or undercharge is the result of a fast or slow meter, then the method of compensation shall be as follows:

a. In case of a disputed account, involving the accuracy of a meter, such meter shall be tested upon request of the customer, as specified in regulation 103-472.

b. In the event that the meter so tested is found to have an error in registration of more than two percent, the bill shall be increased or decreased accordingly, if the time at which the error first developed or occurred can be definitely determined. If such time cannot be determined, such correction shall not be made for more than six months.

2. Customer Wilfully Overcharged. If the gas utility has wilfully overcharged any customer, except as provided for in 1 of this rule, then the method of adjustment shall be as provided in S. C. Code Ann., § 58-5-370 (1976).

3. Customer Inadvertently Overcharged. If the gas utility has inadvertently overcharged a customer as a result of a misapplied schedule, an error in reading the meter, a skipped meter reading, or any other human or

machine error except as provided in 1 of this rule, the gas utility shall at the customer's option credit or refund the excess amount paid by that customer or credit the amount billed as prescribed by the following:

a. If the interval during which the customer was overcharged can be determined, then the gas utility shall credit or refund the excess amount charged during that entire interval, provided that the applicable statute of limitations shall not be exceeded.

b. If the interval during which the customer was overcharged cannot be determined then the gas utility shall credit or refund the excess amount charged during the twelve month period preceding the date when the billing error was discovered.

c. If the exact usage and/or demand incurred by the customer during the billing periods subject to adjustment cannot be determined then the refund shall be based on an appropriate estimated usage and/or demand.

4. Customer Undercharged Due to Wilfully Misleading Company. If the gas utility has undercharged any customer as a result of a fraudulent or wilfully misleading action of that customer, or any such action by any person (other than the employees or agents of the company), such as tampering with, or bypassing the meter when it is evident that such tampering or bypassing occurred during the residency of that customer, or if it is evident that a customer has knowledge of being undercharged without notifying the gas utility as such, then notwithstanding 1 of this rule, the gas utility shall recover the deficient amount provided as follows:

a. If the interval during which the customer was undercharged can be determined, then the gas utility shall collect the deficient amount incurred during that entire interval, provided that the applicable statute of limitations is not exceeded.

b. If the interval during which the customer was undercharged cannot be determined, then the gas utility shall collect the deficient amount incurred during the twelve-month period preceding the date when the billing error was discovered by the gas utility.

c. If the usage and/or demand incurred by the customer during the billing periods subject to adjustment cannot be determined, then the adjustment shall be based on the appropriate estimated usage and/or demand.

d. If the metering equipment has been removed or damaged, then the gas utility shall collect the estimated cost of repairing and/or replacing such equipment.

5. Equal Payment Plans. A gas utility may provide equal payment plans, wherein the charge for each billing period is the estimated total annual bill divided by the number of billing periods prescribed by the plan. The difference between the actual and estimated annual bill is to be resolved by one payment at the end of the equal payment plan year, unless otherwise approved by the commission. However, any incorrect billing under equal payment plan shall be subject to the first paragraph of this rule.

6. Customer Undercharged Due to Human or Machine Error. If the gas utility has undercharged any customer as a result of a misapplied schedule, an error in reading the meter, a skipped meter reading, or any human or machine error, except as provided in 1 and 2 of this rule above, then the gas utility shall recover the deficient amount as provided as follows:

a. If the interval during which a customer was undercharged can be determined, then the gas utility may collect the deficient amount incurred during that entire interval up to a maximum period of twelve months.

b. If the full interval during which a customer was undercharged cannot be determined, then the gas utility may collect only the deficient amount of that portion of the interval that can be determined up to a maximum period of twelve months.

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c. The customer shall be allowed to pay the deficient amount, in equal installments added to the regular monthly bills, over the same number of billing periods which occurred during the interval the customer was subject to pay the deficient amount.

d. If the usage incurred by that customer during the billing periods subject to adjustment cannot be determined, then the adjustment shall be based on an appropriate estimated usage.

### 103-441. Applications for Service.

1. Method. Applications for service may be verbal or in writing.

2. Obligation. The applicant shall, at the option of the gas utility, be required to sign a service agreement or contract. In the absence of such a service agreement or contract, accepted application shall constitute a contract between the gas utility and the applicant, obligating the applicant to pay for service in accordance with the gas utility's tariff or rate schedule currently on file with the commission and the ORS, and to comply with the commission's and the gas utility's rules and regulations governing service supplied by the gas utility.

3. Termination. When a customer desires to have his service terminated, he must notify the gas utility; such notification may be verbal or in writing. The gas utility shall be allowed a reasonable period of time after receipt of such notice to take a final reading of the meter and to discontinue service.

### 103-442. Reasons for Denial or Discontinuance of Service.

Unless otherwise stated, a customer shall be allowed a reasonable time in which to correct any discrepancy which may cause discontinued service.

Service may be denied or discontinued for any of the following reasons:

a. Without notice in the event of a condition determined by the gas utility to be hazardous or dangerous.

b. Without notice in the event of customer use of equipment in such a manner as to adversely affect the gas utility's service to others.

c. Without notice in the event of unauthorized or fraudulent use of gas utility service e.g.:

1. Misrepresentation of the customer's identity.

2. For reconnection of service by customer who has had service discontinued for violation of and/or non-compliance with the commission's regulation 103-442 et seq.

d. Tampering.

After the customer has applied for and/or received service from the gas utility, he shall make every reasonable effort to prevent tampering with the meter and service lines serving his premises. A customer shall notify the gas utility, as soon as possible, of any tampering with, damage to, or removal of any equipment. Tampering with meters or with lines carrying unmetered gas and unauthorized breaking of utility's seals is prohibited by law and shall not be tolerated by the utility. Such meter tampering shall include but shall not be limited to, unassigned meters, or altered meters. Should the utility find that the meter, service line, or seals have been tampered with, the gas utility shall give notice to the customer of possible discontinuance of service. Service may be continued or reconnected consistent with the following:



1. A customer can stop discontinuance of service or have service reconnected by paying a reasonable charge for an inspection (to insure proper operating conditions), a reasonable reconnect fee, and charges to compensate for any damages to the utility's facilities.

2. A customer's bill may be adjusted to reflect normal usage should any tampering reflect other than normal meter readings and the customer's bill may include the establishment of a deposit in accordance with the commission's regulation 103-432 et seq.

Nothing herein shall prevent the gas utility from instituting appropriate legal actions for violations of and/or non-compliances with the commission's regulation 103-442 et seq.

e. For failure of the customer to fulfill his contractual obligations for service and/or facilities subject to regulation by the commission.

f. For failure of the customer to permit the gas utility reasonable access to its equipment.

g. For nonpayment of bill for service rendered provided that the gas utility has made reasonable efforts to effect collection and has complied with the provisions of regulation 103-452.

h. For failure of the customer to provide the gas utility with a deposit as authorized by regulation 103-431.

i. For failure of the customer to furnish permits, certificates, and rights-of-way, as necessary in obtaining service, or in the event such permissions are withdrawn or terminated.

j. For failure of the customer to comply with reasonable restrictions on the use of service, provided that notice has been given to the customer and that written notice has been furnished to the commission and ORS.

k. No gas utility shall be required to furnish its service or to continue its service to any applicant who, at the time of such application, is indebted or any member of his household is indebted, under an undisputed bill to such gas utility for service previously furnished such applicant or furnished any other member of the applicant's household. However, for the purposes of this regulation, the gas utility may not consider any indebtedness which was incurred by the applicant or any member of his household more than six years prior to the time of application.

l. The gas utility may terminate a customer's service should the customer be in arrears on an account for service at another premises.

103-443. Insufficient Reasons for Denying Service.

103-444. Right of Access.

Authorized agents of the gas system shall have the right of access to premises supplied with gas service at reasonable hours, for the purpose of reading meters, examining facilities and pipes, maintenance, repair, observing the manner of using service and for any other purpose which is proper and necessary in the conduct of the gas system's business.

Such agents shall, upon request of a customer, produce proper identification and inform the customer of the purpose of necessary access to occupied premises.

103-445. Complaints.

A. Complaints concerning the charges, practices, facilities, or service of the gas utility, shall be investigated promptly, thoroughly and professionally by the gas utility. Each gas utility shall keep a record of all such

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complaints received, which record shall show the name and address of the complainant, the date and character of the complaint, and the adjustment or disposal made thereof. The gas utility shall keep such records of customer complaints as will enable it to review and analyze its procedures and actions.

B. Unless otherwise specified by the commission, when the ORS has notified the gas utility that a complaint has been received concerning a specific account, the gas utility shall refrain from discontinuing the service of that account for the matter which is the subject of the complaint, until the ORS's investigation is completed, and the results have been received by the gas utility. Service shall not be discontinued if the complainant requests in writing a hearing before the commission within fifteen days of ORS mailing the results of the ORS investigation, along with a copy of regulation 103-445, to the complainant. If the complainant does not file the complaint with the commission within fifteen days, service can be discontinued.

### 103-446. Contracts, Rate Schedules, Rules and Regulations.

Copies of all schedules of rates for service, contracts for service which involve rates, forms of contracts for service, charges for service connections and extensions of mains, and all rules and regulations concerning the relations between the customer and gas utility, shall be filed with the commission by each gas utility and shall be subject to prior approval by the commission. All contracts for service between any industrial customer and any gas utility which establish or adjust rates for any industrial customer shall be filed with the commission by each gas utility and may become effective as of the date of the contracts, unless disapproved or modified by the commission. Complete schedules, contract forms, rules and regulations, etc., as filed with the commission, shall also be available for public inspection at the local offices of the gas utility.

### 103-447. System Which Gas Utility Must Maintain.

Each gas utility, unless specifically relieved by the commission from such obligation, shall operate and maintain in safe, efficient and proper conditions all of the facilities and equipment used in connection with the regulation, measurement and delivery of gas to any customer up to and including the point of delivery into the piping owned by the customer.

### 103-448. System Extensions.

When a prospective customer or customers of a gas utility makes application for service at a point not immediately adjacent to a service facility of a gas utility, and as long as the requirement for such service is reasonable, and the prospective service is in territory assigned by the commission to the gas utility, the gas utility shall render service under reasonable terms and conditions, unless otherwise authorized by the commission.

### 103-449. Replacement of Meters.

Whenever a customer requests the replacement of the gas meter on his premises, such request shall be treated as a request for the test of such meter, and, as such, shall fall under the provisions of regulation 103-475 and shall be subject to the provisions of regulation 103-472.

### 103-450. Service Entrance Changes.

Whenever a customer requests the gas utility to relocate the gas utility's service entrance, the gas utility may require reasonable charges to cover costs incurred to be paid prior to the relocation.

### 103-451. Temporary Service.

## 103-452. Procedures for Termination of Service.

Prior to the termination of gas service pursuant to 103-442 e-m, the following procedures shall be employed by the gas utility:

a. Not less than ten days prior to termination of service, the gas utility shall mail a notice of termination to the affected customer. The notice of termination of service shall include, as a minimum, the following information:

1. Address, telephone number and working hours of the person(s) to be contacted by the customer for the arrangement of a personal interview with an employee of the gas utility with the authority to accept full payment or make other payment arrangements.

2. The total amount owed by the customer for gas services rendered, the date and amount of the last payment and the date by which the customer must either pay in full the amount outstanding or make satisfactory arrangements for payment by installments of such amount.

3. Special Needs Customers.

- a. A statement that service to a residential customer who qualifies as a special needs account customer shall only be terminated in accordance with S.C. Code Ann. §58-5-1110 *et. seq.*, as amended. All gas utilities shall publish their procedures for termination of service on their websites.

- b. The statement that service to a residential customer during the months of December through March will not be terminated where such customer, or a member of his household at the premises to which service is rendered, can furnish to the utility, no less than (3) days prior to termination of service, or to the terminating crew at time of termination, a certificate on a form provided by the utility and signed by a licensed physician, that termination of gas service would be especially dangerous to such person's health. Such certificate must be signed by the customer and state that such customer is unable to pay in full the amount of the charges due for gas service or is unable to pay by installments. A certification shall expire on the thirty-first day from the date of execution by the physician. Such certification may be renewed no more than three (3) times for an additional thirty (30) day period each. Upon renewal of the certification, the gas utility shall advise the customer that he may wish to call the local social service agency to determine what public or private assistance may be available to him.

4. The availability of investigation and review of any unresolved dispute by the ORS and include the ORS's toll free telephone number.

- b. Not more than two business days prior to termination of service, the gas utility shall make reasonable efforts either by telephone or in person to contact the customer to notify him that his service is subject to termination for non-payment. Alternatively, not more than three business days prior to termination of service, the gas utility shall notify the customer by mail that he is subject to termination of service for non-payment. The gas utility shall maintain records of the efforts made to contact such customers. Termination of service may be delayed in case of inclement weather, emergencies or operational conflicts.

- c. The gas utility shall provide for the arrangement of a deferred payment plan to enable a residential customer to make payment by installments where such customer is unable to pay the amount due for gas service. The deferred payment plan shall require the affected customer to maintain his account current and pay not less than one-sixth of the outstanding balance for a period not to exceed six months. The outstanding balance may include the late payment charge authorized by regulation 103-439(3). Service to such customer shall not be terminated unless the gas utility has informed the customer that such deferred payment plan is available. Any agreement to extend or defer a payment cut off date by more than five work days is a deferred payment plan. If

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a customer fails to conform to the terms and conditions of such deferred payment plan, the gas utility may terminate service upon three days written notice, if personally delivered, or upon five days notice by mail.

d. If a residential customer informs the utility that he is unable to make payment in full on his account or to make arrangements for the satisfaction of the balance of his account through a deferred payment plan, the gas utility shall advise the customer that he may wish to call the local social service agency to determine what public or private assistance may be available to the customer.

e. The gas utility shall maintain a record of all deferred payment plans established with customer subject to termination for a period of two years.

f. The gas utility shall provide a copy of the termination notice to any third party identified by the customer upon establishment of the service account or at any time thereafter.

g. The gas service may be terminated only on Monday through Thursday between the hours of 8:00 a.m. and 4:00 p.m., unless provisions have been made for the availability of the acceptance of payment and the reconnection of service. Gas service may not be terminated on the day preceding any day on which the gas utility's collection offices are closed, unless provisions have been made for the availability of the acceptance of payment and the reconnection of service. All employees of gas utilities assigned to terminate service shall be authorized to accept payment from customers subject to termination of service or in lieu thereof, at the utilities' option, allow such customer at least one full working day beyond the initial date set for termination the opportunity to make satisfactory arrangements on the account at the offices of the utility; provided, however, that in certain areas where it has been determined by the utility that the safety of its employees warrants it, those employees shall not be required to accept payments from customers subject to termination.

### **SUBARTICLE 5 ENGINEERING**

103-460. Criteria for Good Engineering Practice.

The gas plant of a gas system shall be constructed, installed, maintained, and operated in accordance with good engineering practices and regulations included by reference as part of these rules to assure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished, and the safety of persons and property.

103-461. Acceptable Standards.

Unless otherwise specified by the commission, after hearing if requested, the gas system shall use the applicable provisions in the publications listed below as operational references, where applicable, and as standards of accepted good engineering practices.

a. The edition of the American Standard Code for "Gas Transmission and Distribution Piping Systems", ANSI B31.8. as referenced in the Federal Pipeline Safety Regulations.

b. The latest edition of the American Standards Association Pamphlet, ASA Z21.30, "Installation of Gas Appliances and Gas Piping in Buildings", or the latest edition of the National Board of Fire Underwriters publication NFPA No. 54, "Piping, Appliances and Fittings for City Gas".

c. The edition of the NFPA No. 59, "The Storage and Handling of Liquefied Petroleum Gases at Utility Gas Plants" as referenced in the Federal Pipeline Safety Regulations.

d. "Standard Methods of Gas Testing", Circular No. 48, National Bureau of Standards, 1961. (The applicable portions of this Circular have been substantially reproduced in the American Meter Company Handbook E-4, covering the testing of positive displacement meters).

e. "Testing Large Capacity Rotary Gas Meters", Research Paper No. 1741, National Bureau of Standards Journal of Research, September, 1946.

f. "Orifice Metering of Natural Gas", Report No. 3 of the AGA Gas Measurement Committee.

g. "Standard Method of Test for Calorific Value of Gaseous Fuels by Water-Flow Calorimeter", American Society for Testing Materials, Standard D 900-55.

h. The edition of NFPA No. 59A, "Storage and Handling of Liquefied Natural Gas" as referenced in the Federal Pipeline Safety Regulations.

103-462. Acceptable References.

The following publications are considered by this commission to be acceptable references:

a. "Accuracy of the Recording Gas Calorimeter When Used With Gases of High BTU Content", by John H. Eisemen, National Bureau of Standards, and Elwin A. Potter, Gas Inspection Bureau of the District of Columbia, AGA Publication No. CEP-55-13.

b. Reports prepared by the Practical Methods Committee of the Appalachian Gas Measurement Short Course, West Virginia University, as follows:

(1) Report No. 1, "Method of Testing Large Capacity Displacement Meters".

(2) Report No. 2, "Testing Orifice Meters".

(3) Report No. 3, "Designing and Installing Measuring and Regulating Stations".

(4) Report No. 4, "Useful Tables for Gas Men".

(5) Report No. 5, "Prover Room Practices".

103-463. Adequacy of Service.

The source of supply and transmission facilities for gas, and/or production and/or storage capacity of the gas utility's plant, supplemented by the gas supply regularly available from other sources, must to the extent reasonably practicable, be sufficiently large to meet all reasonably expectable demands for firm service, unless otherwise authorized by the commission.

103-464. Inspection of Plant.

Each gas system shall adopt a program of inspection of its gas plant in order to determine the necessity for replacement and repair. The frequency of the various inspections shall be based on the gas system's experience and accepted good practice.

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### 103-465. Inactive Service Lines.

1. Service Lines. Each gas system shall conduct a study at intervals not exceeding twenty-four months to determine the number of inactive service lines in their system and shall take necessary steps to meet the following:

a. Inactive service lines for which there is no definite plan for future use or reasonable possibility for future use or are found to be in unsafe condition shall be physically disconnected from the gas supply at the main, purged and the open pipe ends shall be sealed.

b. Inactive service lines for which there is a definite plan for future use or a reasonable possibility for future use may remain connected to the gas supply at the main if such lines are found to be in safe condition, provided that in addition to maintaining such lines in accordance with all other applicable requirements, such lines be monitored at intervals not exceeding twenty-four months by leakage survey to detect conditions detrimental to public safety.

## SUBARTICLE 6 INSPECTION AND TESTS

### 103-470. Utility Inspection and Tests.

A. Each gas utility shall make such tests as are prescribed under these rules with such frequency and in such manner and at such places as is herein provided, as requested by the ORS or as may be approved or ordered by the commission. Unless otherwise directed by the commission, the methods and apparatus recommended by the National Bureau of Standards in the latest edition of its Circular No. 48, "Standard Methods of Gas Testing" may be used.

B. When the gas itself is to be tested pursuant to these rules, a "cubic foot" shall mean the quantity of gas necessary to fill a cubic foot of space when the gas is at an absolute pressure of 14.73 pounds per square inch and at a temperature of sixty degrees Fahrenheit. For purposes of measurement of gas to a customer a cubic foot of gas shall be taken to be the amount of gas which occupies a volume of one cubic foot under the conditions existing in such customer's meter as and where installed.

### 103-471. Periodic Tests.

These test periods may be extended upon application and approved by the commission, providing that the gas utility can prove by its own records that different test periods are adequate for the protection of the public. Meters may be tested and calibrated in accordance with "Sample Meter Testing Plans" approved by the commission; and gas utilities using a "Sample Meter Testing Plan" shall continue to advise the commission of the results of the operation of the plan.

#### a. Positive Displacement Meters.

(1) Up to 251 c.f./hr. (at .5 in. water column differential pressure with non-absorptive diaphragm)-Ten years.

(2) 251 to 3000 c.f./hr (at .5 in. water column differential pressure)-Three years.

(3) Over 3000 c.f./hr. (at .5 in. water column differential pressure)-Two years.

b. Orifice Meters. Six Months.

c. Turbine Meters. Six Months.

- d. Base Pressure Correcting Devices. Two Years.
- e. Base Volume Correcting Devices. Two Years.
- f. Recording Pressure and Temperature Gauges. One Year.
- g. Secondary Standards.
  - (1) Test Bottles, one cubic foot Five Years.
  - (2) Dead Weight Testers including Weights Five Years.
- h. Working Standards.
  - (1) Bell Provers Five Years.
  - (2) Flow Provers Five Years.
  - (3) Transfer Provers Five Years.
  - (4) Laboratory Quality Indicating Pressure Gauges Six Months.
  - (5) Laboratory Quality Thermometers Six Months.

103-472. Meter Testing on Request of Customer.

A. Each gas utility shall, at any time when requested in writing by a customer upon reasonable notice, test the accuracy of the meter in use by him.

B. No deposit or payment shall be required from the customer for such meter test except when the customer requests a meter test within one year after date of installation or of the last previous test of this meter, in which case the customer may be required by the gas utility to deposit an amount, to cover the reasonable cost of such test, as approved by the commission in the gas utility's tariff or service regulation. The amount so deposited with the gas utility shall be refunded or credited to the customer if the meter is found, when tested, to register more than two percent fast or slow; otherwise the deposit shall be retained by the gas utility.

C. A customer may request to be present when the gas utility conducts the test on his meter, or if he desires, may send a representative appointed by him. The gas utility shall honor such request.

D. A report giving the name of the customer requesting the test; the date of the request; the location of the premises where the meter has been installed; the type, make, size and serial number of the meter; the date of removal; the date tested; and the result of the test shall be supplied to such customer within a reasonable time after the completion of the test.

103-473. ORS Inspection and Tests.

The ORS shall make tests of meters as follows:

- a. Upon order of the commission or request to the ORS by a customer or gas utility, a test will be made of customer's meters as soon as practicable.

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b. On receipt of such request the ORS shall notify the gas utility and the gas utility shall not remove or adjust the meter until instructed by the ORS. The gas utility shall furnish to the ORS's representative such reasonable assistance as may be required.

c. The customer shall be notified of the test in sufficient time to allow him or his representative to be present.

d. The ORS shall make a written report of the results of the test to the customer and to the gas utility.

### 103-474. Facilities and Equipment for Testing.

1. General. Each gas utility shall, unless specifically excused by the commission, provide such laboratory, meter-testing equipment and other equipment and facilities as may be necessary to make the tests required of it by these rules or other orders of the commission or as requested by the ORS. The apparatus and equipment so provided shall be subject to the approval of the commission, and it shall be available at all times for the inspection or use of any member or authorized representative of the ORS.

2. Meter Shop. Each gas utility shall maintain or designate a meter shop for the purpose of inspecting, testing and repairing meters. The shop shall be open for inspection by authorized representatives of the ORS at all reasonable times, and the facilities and equipment, as well as the methods of measurements and testing employed, shall be subject to the approval of the commission. The area within the meter shop used for the testing of meters shall be designed so that the meters and meter testing equipment are protected from drafts and excessive changes in temperature. The meters to be tested shall be stored in such manner that the temperature of the meters is substantially the same as the temperature of the prover.

### 3. Working Standards.

A. Each gas utility furnishing metered gas service shall own an approved type of meter prover or designate a meter shop which is equipped with an approved type of meter prover preferably of not less than two cubic feet capacity, equipped with suitable thermometers and other necessary accessories, and it shall maintain such equipment in proper adjustment so that it shall be capable of determining the accuracy of any service meter to within one-half of one percent.

B. Bell provers shall be so placed that they will not be subjected to drafts or excessive temperature variations.

C. Means shall be provided to maintain the temperature of the liquid in bell provers at substantially the same level as the ambient temperature in the prover room.

D. Each gas utility having meters which are too large for testing on a five cubic foot bell prover shall use a properly calibrated test meter or a properly designed flow prover for testing the large meters.

E. The accuracy of all provers and methods of operating them will be established from time to time by a representative of the ORS. All alterations, accidents, or repairs which might affect the accuracy of any meter prover or the method of operating it shall be promptly reported in writing to the commission and the ORS.

F. Working standards must be checked periodically by comparison with a secondary standard.

1. Bell provers must be checked with a cubic foot bottle which has been calibrated by the National Bureau of Standards, unless another standard is authorized by the commission.

2. Transfer and Flow Provers must be checked with a bell prover of adequate capacity which has been calibrated by representatives of the National Bureau of Standards unless another standard is authorized by the commission.



G. Extreme care must be exercised in the use and handling of standards to assure that their accuracy is not disturbed.

H. Each gas utility must have properly calibrated orifices, as may be necessary, to achieve the rates of flow required to test the meters on its system.

4. Special Meters. Any meter, the readings or record of which is based on the differential pressure in such meter or upon the measurement of any portion of the total gas delivered to a customer, shall be tested for accuracy before being placed in service in a manner satisfactory to the commission.

103-475. Test Procedures and Accuracies.

1. Pre-Installation Inspection.

a. Every meter and/or associated metering device shall be inspected and sealed before being placed in service.

b. New or reconditioned meters which have been sealed at the factory need not be resealed in the shop of the gas utility.

2. Post-Removal Inspection and Tests. All meters and/or associated metering devices shall be tested when returned to the meter shop prior to being placed back in service.

3. Leak Tests. Every meter shall be leak tested prior to installation.

a. Each new meter must have been tested by the manufacturer to a minimum of ten p.s.i.g.

b. Meters removed from service and returned to the meter shop shall, prior to being placed back in service, be tested and subjected to an internal pressure of 1.1 times the maximum operating pressure of the meter and checked for the presence of leaks by one of the tests listed under subsection 4 below.

c. Acceptable Leak Tests.

(1) Immersion Tests.

(2) Soap Tests.

(3) Pressure drop test of a type acceptable to the commission.

4. Operating Pressure Limitations.

A. A meter may not be used at a pressure that is more than sixty-seven percent of the manufacturer's shell test pressure.

B. A rebuilt or repaired tinned steel case meter may not be used at a pressure that is more than fifty percent of the pressure used to test the meter after rebuilding or repairing.

5. Method of Testing. All tests to determine the accuracy of registration of any gas service meter shall be made with a suitable meter prover.

The tests of any unit of metering equipment shall consist of a comparison of its accuracy with the accuracy of a standard. The ORS will use the applicable provisions of the standards listed in 103-461 as criteria of accepted good practice in testing meters.

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All meters and/or associated metering devices, when tested, shall be adjusted as closely as possible to the condition of zero error. All tolerances listed below are to be interpreted as maximum permissible variations from the condition of zero error.

### a. Diaphragm, Displacement, Rotary, and Turbine Meters

#### (1) Accuracy at Test Points.

FLOW	ADJUSTED TO WITHIN
Check Flow (20% of rated meter capacity)	98.5%--100.5%
Full Flow (Equal to or in excess of operating load requirement)	98.5%--100.5%

#### (2) Actual Accuracy.

The accuracy as determined by averaging the results at the check and open rated flow.

#### (3) Overall Accuracy.

The accuracy at a check flow and the accuracy at not less than open rated flow shall agree within one percent.

### b. Orifice Meters.

Accuracy at test points must be within one-half of one percent plus or minus.

### c. Timing Devices.

All recording type meters or associated instruments which have a timing element that serves to record the time at which the measurement occurs must be adjusted as far as practicable so that the timing element is not in error by more than plus or minus five minutes in twenty-four hours.

## SUBARTICLE 7 STANDARDS AND QUALITY OF SERVICE

103-480. Quality of Service.

103-481. Interruption of Service.

103-482. Restrictions on Use of Service.

A. The gas utility may impose reasonable restrictions on the use of service during periods of shortage of supply, excessive demand or other difficulty which jeopardizes the supply of service to any group of customers.

B. Restrictions on the use of service made necessary by the shortage of supply shall be made in conformity with the gas utility's curtailment plan approved by the commission.

C. The gas utility may impose reasonable restrictions on the use of service by customers who create conditions which prevent the gas utility from supplying satisfactory service to that customer, or to other customers.

D. If a gas utility finds that it is necessary to restrict the use of service, it shall notify its customers, and give the commission and the ORS written notice, except in emergencies, before such restriction becomes effective. Such notifications shall specify but not be limited to:

1. The reason for the restriction.
2. The nature and extent of the restriction of use by certain classes of customers, etc.
3. The date such restriction is to go into effect.
4. The probable date of termination of such restriction.

103-483. Special Tests.

103-484 is deleted.

103-485. System Pressure Monitoring.

A. Each gas system shall maintain on its distribution system in each city in which it supplies gas a sufficient number of recording devices, but not less than one, to ensure detections of abnormal system pressures. No gas system shall maintain less than two such recording pressure gauges of which one should be portable. Electronic and/or remote type devices may be utilized in addition to maintaining a portable pressure recording gauge.

B. Each gas system shall keep records of each test of pressures in various parts of its distribution systems. The records obtained shall include as a minimum, the date, time, and location where the pressure was taken and shall be retained for a two year period. These records may be electronic with suitable back-up means, and the ability to generate a hard copy upon request of the ORS.

### **SUBARTICLE 8 SAFETY**

103-490. General.

A. The commission hereby adopts the Federal Minimum Safety Standards for the Transportation of Natural and Other Gas, 49 C.F.R. as applicable to gas systems and as amended from time to time, except where otherwise ordered by the commission.

B. Under the authority of S. C. Code Ann. § 58-5-980 (1976), the commission herein establishes additional minimum safety standards, as noted infra. Such modifications reflect additional requirements to those established by 49 C.F.R., and are not to be construed as deleting the existing Federal requirement.

C. Under the authority of S. C. Code Ann. § 58-5-960 (1976), the safety standards adopted by the commission apply to all gas systems.

D. As criteria of accepted good safety practice, in addition to those of 49 C.F.R., as amended from time to time, the commission will use the applicable provisions of the standards listed in regulation 103-461.

103-491. Protective Measures.

A. Each gas system shall exercise reasonable care to reduce the hazards to which its employees, its customers, and the general public may be subjected.

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B. The gas system shall give reasonable assistance to the ORS in the investigation of the cause of accidents and shall give reasonable assistance to the commission and the ORS in the determination of suitable means of preventing accidents.

C. Each gas system shall maintain a summary of all reportable accidents arising from its operations.

##### 103-492. Safety Program.

Each gas system shall adopt and execute a safety program, fitted to the size and type of its operations. As a minimum, the safety program should comply with the Federal Regulations: Minimum Safety Standards for the Transportation of Natural and Other Gas, 49 C.F.R., as amended from time to time:

- a. Require employees to use suitable tools and equipment in order that they may perform their work in a safe manner.
- b. Instruct employees in safe methods of performing their work.
- c. Instruct employees, who, in the course of their work are subject to the hazard of electrical shock, asphyxiation or drowning, in accepted methods of artificial respiration.
- d. Establish liaison with appropriate public officials including fire and police officials in anticipation of a potential emergency.
- e. Establish an educational program to enable customers and the general public to recognize and report a gas emergency to the appropriate officials.

##### 103-493. Leakage.

1. General. Any notice to the gas system of a leak or odor or notification of damage to gas facilities reported by any source shall constitute the need for immediate action by the gas system. In the event that the response time exceeded one (1) hour, the reason should be included in the report to the ORS as well as the grade level of the leak and other pertinent information.

2. Classification. Each gas system shall establish procedures for classifying and repairing leaks meeting the requirements of this section:

Grade 1--Grade 1 means a leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous.

Grade 2--Grade 2 means a leak that is recognized as being nonhazardous at the time of detection but requires scheduled repair based on probable future hazard.

Grade 3--Grade 3 means a leak that is nonhazardous at the time of detection and can be reasonably expected to remain nonhazardous.

##### 3. Leakage Surveys.

All buried piping not protected against corrosion in accordance with 49 C.F.R. Section 192, Subpart I, must be subjected to instrument leakage surveys as frequently as necessary, but at intervals not exceeding twelve months.

4. Vegetation Leakage Surveys.

Vegetation type leak surveys are prohibited.

103-494. Interruptions in Service.

A. Each gas system shall adopt and file with the commission, for approval, and provide a copy to the ORS procedures to protect customers during periods when operating conditions require interruptions in service due to scheduled or unscheduled curtailments, line breakage, equipment malfunctions, and force majeure conditions.

B. Such procedures shall insure that adequate safety precautions are taken to prevent hazards to which gas system employees, gas system customers and the general public may be subjected.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

**Statement of Rationale:**

The purpose of the revisions to Regs. 103-300, et seq. and Regs. 103-400, et seq. is to conform the Public Service Commission’s electric and gas regulations with Act No. 175 of 2004. There was no scientific or technical basis relied upon in the development of these regulations.

Document No. 3126  
**PUBLIC SERVICE COMMISSION**  
CHAPTER 103  
Statutory Authority: 1976 Code Section 58-3-140

103-100 et seq. and 103-200 et seq. Motor Carriers

**Synopsis:**

In 2004, the General Assembly passed Act No. 175 which restructured the Public Service Commission. This Act modified the structure of the Agency and its functions and created the Office of Regulatory Staff. Several duties of the Public Service Commission were transferred to the Office of Regulatory Staff on January 1, 2005. The purpose of the revisions to Regs. 103-100, et. seq. (1976 & Supp. 2006) and Regs. 103-200, et. seq. (1976 & Supp. 2006) of the Public Service Commission’s regulations is to amend these regulations to conform to the new standards set out by Act 175 of 2004 and to make other changes consistent with the Public Service Commission’s duty to protect the public welfare.

**Instructions:** Print regulations in accordance with directions given below to show most current date of revised regulations.

- 103-1 through 103-74      Leave as currently printed
- 103-100                  Print as amended and shown below
- 103-101                  Print as amended and shown below
- 103-102                  Print as amended and shown below
- 103-103                  Print as amended and shown below
- 103-110                  Print as amended and shown below
- 103-111                  Print as amended and shown below
- 103-112                  Print as amended and shown below

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103-114	Print as amended and shown below
103-115	Print as amended and shown below
103-120	Leave as currently printed
103-122	Print as amended and shown below
103-130	Print as amended and shown below
103-131	Leave as currently printed
103-132	Print as amended and shown below
103-133	Print as amended and shown below
103-134	Print as amended and shown below
103-135	Print as amended and shown below
103-136	Print as amended and shown below
103-137	Leave as currently printed
103-138	Print as amended and shown below
103-139	Print as amended and shown below
103-150	Print as amended and shown below
103-151	Print as amended and shown below
103-152	Print as amended and shown below
103-153	Print as amended and shown below
103-154	Print as amended and shown below
103-155	Print as amended and shown below
103-156	Print as amended and shown below
103-157	Leave as currently printed
103-158	Print as amended and shown below
103-159	Print as amended and shown below
103-160	Delete this section
103-162	Print as amended and shown below
103-164	Print as amended and shown below
103-170	Print as amended and shown below
103-171	Print as amended and shown below
103-172	Print as amended and shown below
103-173	Print as amended and shown below
103-174	Print as amended and shown below
103-175	Print as amended and shown below
103-176	Print as amended and shown below
103-177	Print as amended and shown below
103-178	Print as amended and shown below
103-179	Leave as currently printed
103-180	Print as amended and shown below
103-181	Leave as currently printed
103-190	Print as amended and shown below
103-191	Print as amended and shown below
103-192	Leave as currently printed
103-193	Print as amended and shown below
103-194	Leave as currently printed
103-195	Print as amended and shown below
103-196	Print as amended and shown below
103-197	Print as amended and shown below
103-198	Print as amended and shown below
103-199	Print as amended and shown below
103-210	Print as amended and shown below
103-220	Print as amended and shown below
103-221	Print as amended and shown below
103-222	Leave as currently printed

103-223	Leave as currently printed
103-224	Leave as currently printed
103-225	Print as amended and shown below
103-230	Leave as currently printed
103-231	Print as amended and shown below
103-232	Print as amended and shown below
103-233	Print as amended and shown below
103-240	Print as amended and shown below
103-241	Print as amended and shown below
103-280	Delete this section

**Text:**

**ARTICLE 1  
COMMON CARRIERS**

103-1 to 103-5	Repealed as of December 1, 1976
103-6	Notice to be Posted
103-7	Opening Waiting Rooms
103-8	Waiting Rooms
103-9	Heating, Lighting, etc., of Coaches
103-10	Handling Baggage
103-11	Notice as to Delayed Trains
103-12	Notice of Change in Schedules
103-13	Accidents
103-14	Closing or Discontinuing Depots, Stations and Agencies
103-15	Discrimination
103-16	Notice as to Obstructed Trains
103-17	Repealed by State Register Volume 12, Issue No. 5, eff. May 27, 1988
103-18	Filing Reports and Furnishing Information
103-19	Stopping Passenger Trains at Stations
103-20	Conductors on Pullman, Dining Cars, etc.
103-21	Rates Applicable to Roads Under One Management or Control
103-22	Local Shipments
103-23	Joint Rates Defined, Manner of Making Combination Rates
103-24	Rates Between Competitive Points
103-25	Distances for Changing Rates
103-26	No Change of Rates Without Approval of the Commission
103-27	No Discrimination Allowed
103-28	No Rebate Permitted
103-29	Obligation to Serve
103-30	Notice to be Given Before Change of Rates
103-31	When Rates are Effective
103-32	Conflict Between Rates
103-33	Delays in Transportation
103-34	Repealed by State Register Volume 12, Issue No. 5, eff. May 27, 1988
103-35	Articles Not Classified
103-36	Repairs and Improvements
103-37	Adjusting Overcharges
103-38	Rates for Less than Carloads Not to Exceed Carload Rates
103-39	Repealed by State Register Volume 12, Issue No. 5, eff. May 27, 1988
103-40	Railroads Required to Furnish Information
103-41	Carload and Ton Defined

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- 103-42 Assessing Rates Where Not Otherwise Provided for
- 103-43 Posting of Rates
- 103-44 Regulating Charges for Shorter Distances
- 103-45 Erecting Depots
- 103-46 Time Tables
- 103-47 Weighing Carload Shipments
- 103-48 Handling Freight at Non-Agency Stations
- 103-49 Handling Freight Cars on First Class Passenger Trains
- 103-50 Grain-Cleaning in Transit
- 103-51 Milling-in-Transit Rules
- 103-52 General Rule
- 103-53 Posting Schedules
- 103-54 Changes in Rates and Classification
- 103-55 Accidents
- 103-60 to 103-73 Repealed as of December 31, 1976
- 103-74 Guidelines for Rail Regulation

### **ARTICLE 2 MOTOR CARRIERS SUBARTICLE 1 GENERAL**

#### 103-100. Authorization of Rules.

1. These rules and regulations are promulgated pursuant to the authority vested in the commission by the General Assembly by its enactments contained in Articles 1 to 11 of Chapter 23 of Title 58 of the Code of Laws of South Carolina, 1976. All previous rules, regulations, and standards are hereby revoked, annulled and superseded.
2. The adoption of these rules shall in no way preclude the Public Service Commission from altering, amending, or revoking them in whole or in part, or from requiring any other or additional service, equipment, facility, or standard, either upon complaint or its own motion, or upon the application of any motor carrier. Moreover, these rules shall not relieve in any way either the commission or the motor carriers of any duties under the laws of this State.
3. These rules and regulations are consistent with Section 601, Pre-emption of Intrastate Transportation of Property, of the Federal Aviation Administration Authorization Act of 1994, enacted on August 23, 1994.

#### 103-101. Application of Rules.

1. Jurisdiction. These rules are for general application and therefore shall apply to any person, firm, partnership, association, or corporation which is now or may hereafter become engaged as a motor carrier for hire within the State of South Carolina except where specifically exempt by statute.
2. Waiver of Rules. These rules are subject to such exceptions as may be considered just and reasonable as ordered by the commission in individual cases when strict compliance with any rule or rules produces unusual difficulty and is not in the public interest. They are considered supplementary to the statutes contained in Chapter 23 of Title 58 of the Code of Laws of South Carolina, 1976.



**103-102. Definitions of Terms.**

As used herein, the following terms shall be accorded meaning as indicated:

1. **Certificated Carrier.** "Certificated Carrier" means a motor carrier operating under a Certificate of PC&N, a Certificate of FWA, or a Charter Bus Certificate.
2. **Certificate of FWA.** "Certificate of FWA" means the certificate of fit, willing, and able authorized to be issued under provisions of Chapter 23 of Title 58 of the Code of Laws of South Carolina, 1976. Certificates of FWA shall be required of all for-hire household goods carriers operating exclusively within limits of any municipality in this State. Holders of Certificates of FWA shall be considered regulated carriers.
3. **Certificate of PC&N.** "Certificate of PC&N" means the certificate of public convenience and necessity authorized to be issued under the provisions of Chapter 23 of Title 58 of the Code of Laws of South Carolina, 1976. Certificates of PC&N shall be required of all for-hire passenger carriers, household good carriers (except those operating exclusively within the limits of any municipality), and hazardous waste for disposal carriers. Holders of Certificates of PC&N shall be considered regulated carriers.
4. **Charter Bus Certificate.** A "Charter Bus Certificate" is a certificate issued to charter bus motor carriers which signifies that the motor carrier has met all of the insurance requirements of the commission, and all of the safety requirements of the South Carolina Department of Public Safety. A Charter Bus Certificate shall be denominated "Class C-Charter Bus."
5. **Charter Bus.** "Charter Bus" means a motor vehicle carrying 16 or more passengers. However, a limousine shall not be considered to be a charter bus.
6. **Class C Charter Certificate.** "Class C Charter Certificate" is a Class C certificate required to be held by service providers engaged in passenger for hire transportation using any motor vehicle equipped to carry up to fifteen (15) passengers and accepting passengers exclusively on a pre-arranged basis and which remuneration is determined on an hourly basis. A Class C Charter Certificate shall be denominated "Class C – Charter."
7. **Class C Taxi Certificate.** "Class C Taxi Certificate" is a Class C certificate required to be held by service providers engaged in passenger for hire transportation using any motor vehicle equipped to carry up to fifteen (15) passengers, whether or not equipped to handle wheelchairs, which operates on call or demand/response service whereby remuneration is determined on a per trip basis. The issuance of a Taxi certificate signifies that the motor carrier has met all of the requirements of the commission and all of the safety requirements of the Department of Public Safety. A Class C Taxi Certificate shall be denominated "Class C – Taxi."
8. **Commission.** "Commission" means the Public Service Commission of South Carolina.
9. **Common Carrier by Motor Vehicle.** "Common Carrier by Motor Vehicle" means any person which holds itself out to the general public to engage in the transportation by motor vehicle in intrastate commerce of persons or property for compensation, whether over regular or irregular routes, except as exempted in Section 58-23-50 and Section 58-23-70 of Code of Laws of South Carolina, 1976.
10. **Contract Carrier by Motor Vehicle.** "Contract Carrier by Motor Vehicle" means any person which engages in transportation by motor vehicle of property in intrastate commerce for compensation under contracts with one person or a limited number of persons either (a) for the furnishing of transportation service through the assignment of motor vehicles to the exclusive use of each person served, or (b) for the furnishing of transportation services designed to meet the distinct need of each individual customer.
11. **Corporation.** "Corporation" means a corporation, company, association, or joint stock association.

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12. Driver. "Driver" or "Operator" shall mean any person who physically operates a licensed taxi, limousine, non-emergency vehicle or wheelchair van as defined herein, whether such person operates as agent, lessee, independent contractor or employee of any certificated carrier.

13. Interstate Commerce. "Interstate Commerce" means commerce between any place in a state and any place in another state.

14. Intrastate Commerce. "Intrastate Commerce" means commerce between points and over a route or within a territory wholly within this State, which commerce is not a part of a prior or subsequent movement to or from points outside of this State in interstate or foreign commerce, and includes all transportation within this State for compensation which has been exempted by Congress from federal regulation in interstate or foreign commerce.

15. Limousine. A "Limousine" shall mean any motor vehicle equipped to carry up to fifteen (15) passengers which exclusively engages in "Class C Charter" operations. Limousines shall be required to obtain a Class C – Charter certificate.

16. Motor Carrier. "Motor Carrier" means both a common carrier by motor vehicle and a contract carrier by motor vehicle.

17. Motor Vehicle Carrier Law. "Motor Vehicle Carrier Law" means Articles 1 to 11 and 15 of Chapter 23 of Title 58 of the Code of Laws of South Carolina, 1976.

18. Motor Vehicle. "Motor Vehicle" means any vehicle, machine, tractor, semi-trailer, or any combination thereof, which is propelled or drawn by mechanical power and used upon the highways of this State.

19. Municipality. "Municipality" means any incorporated city or town within the State of South Carolina.

20. Non-Emergency Vehicle. "Non-Emergency Vehicle" means a vehicle that is used for providing, for a fee or charge, non-emergency transportation, for patients in stable medical condition. "Non-Emergency Vehicle" includes "Wheelchair Van" but not taxicabs. "Non-Emergency Vehicle" shall not include vehicles owned by facilities that provide such transportation as described above without charging a separate fee for the transportation service.

21. ORS. The "ORS" means the South Carolina Office of Regulatory Staff.

22. Person. "Person" means any individual, firm, partnership, corporation, company, association, or joint-stock association, and includes any trustee, receiver, assignee, or personal representative thereof.

23. Public Highway. "Public Highway" means every improved public highway in this State which is or may hereafter be declared to be a part of the state highway system or any county highway system or a street of any city or town.

24. Rates. "Rates" include rates, fares, tolls, rentals and charges.

25. State. "State" means the State of South Carolina.

26. STB. "STB" means Surface Transportation Board.

27. Tariff. "Tariff" means any schedule or publication showing the rates, fares, charges, rules, regulations, and classifications for the transportation within this State of persons and property.

28. Taxi. A "Taxi" or "Taxi Cab" means a passenger carrier vehicle capable of carrying between one and fifteen passengers, the use or transportation in which is paid for or billed to the passengers on a per trip basis.

29. Wheelchair Van Patient. "Wheelchair Van Patient" means a patient whose medical condition is such that the person may be transported safely and securely in a Wheelchair Van. These patients must be transported in a sitting position in a secured wheelchair and/or require a ramp or lift to board the vehicle.

30. Wheelchair Van. "Wheelchair Van" means a Non-Emergency Vehicle other than a taxi cab which is modified, equipped and used for the purpose of providing non-emergency medical transportation for Wheelchair Van Patients. These vehicles are specifically designed and modified to load and transport both ambulatory and wheelchair-bound patients in a safe and secure manner.

103-103. Regulated Carriers Must Maintain Copy of Motor Vehicle Carrier Law and commission's Rules and Regulations.

Every motor carrier regulated by the commission shall keep at all times in its principal office in South Carolina a copy of these rules and regulations. Access to these rules and regulations via the internet or through other electronic means at the carrier's principal office shall be deemed sufficient to meet the requirements of this regulation.

**SUBARTICLE 2  
CLASSIFICATION OF MOTOR CARRIERS**

103-110. Class "A" Motor Carrier - Certificate of Public Convenience and Necessity.

A Class A motor carrier is a common carrier by motor vehicle of passengers, operating over regular routes and upon regular schedules as filed with and approved by the commission. Class A Certificates of Public Convenience and Necessity for the transportation of passengers shall include the authority to transport in the same vehicle with the passengers, baggage, express, mail and newspapers, and to transport baggage of passengers in separate motor vehicles when necessary, provided, however, that such articles for shipment shall be originated and terminated at a terminal of the transporting Class A Certificate holder or of some other Class A carrier, and holders of Class A Certificates of Public Convenience and Necessity approved by the commission and issued by the ORS may transport special or chartered parties originating along their authorized routes to any point intrastate and return, subject to the Rules and Regulations of the commission pertaining thereto, provided further, however, that this provision shall not be applicable to Class A Certificates which are restricted. A Class A motor carrier must obtain a Certificate of PC&N from the ORS after approval by the commission.

103-111. Class "B" Motor Carrier - Certificate of Public Convenience and Necessity.

A Class B motor carrier is a common carrier by motor vehicle of passengers which does not propose to operate regularly upon a fixed schedule or route and which only desires to operate over a particular route or routes that are not already served by one or more Class A motor carriers. A Class B motor carrier must obtain a Certificate of PC&N from the ORS after approval by the commission.

103-112. Class "C" Motor Carrier - Certificate of Public Convenience and Necessity.

A Class C motor carrier is a common carrier by motor vehicle of passengers, generally known as "taxi cabs," "charter buses," "charter limousine," and "non-emergency vehicles," which does not operate over regular routes or upon regular schedules, and which does not, in any way, solicit or receive patronage outside of the radius of two miles of the corporate limits of the city in which it is licensed to do business, except upon such highways as are not served by a Class A or B motor carrier. A Class C motor carrier must obtain a Certificate

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of PC&N from the ORS after approval by the commission, except "charter buses," which must obtain a Charter Bus Certificate.

103-114. Class "E" Motor Carrier - Certificate of Public Convenience and Necessity.

A Class E motor carrier is a common carrier of property (household goods or hazardous waste for disposal) by motor vehicle including a motor vehicle containing goods packed by a packing service. A Class E motor carrier must obtain either a Certificate of PC&N or FWA from the ORS after approval by the commission.

103-115. Class "F" Motor Carrier - Certificate of Public Convenience and Necessity.

A Class F motor carrier is a contract carrier by motor vehicle of hazardous waste for disposal which operates over irregular routes and upon irregular schedules under contract as filed with and approved by the commission and which does not solicit or receive patronage along any such routes. No motor carrier shall be allowed to acquire more than one Class F Certificate, and each Class F Certificate issued may not have more than three contracts attached thereto at any one time. A Class F motor carrier must obtain a Certificate of PC&N from the ORS after approval by the commission.

### SUBARTICLE 3 EXEMPTIONS FROM REGULATIONS

103-120. Motor Carriers Exempt from Economic Regulations.

103-122. Further Exemptions.

1. The commission does not have jurisdiction over motor carriers solely:
  - a. Carrying on the business of transporting passengers exclusively within the limits of any municipality in this State for which they have a license to operate within that municipality;
  - b. Transporting passengers to or from state institutions located in Richland County; or
  - c. Transporting passengers within a distance of ten miles from the limits of municipalities in Chester and Lancaster Counties when substantially all of the passengers are workers in industrial plants, eighty percent of the production of which is for defense materials;
  - d. Having a seating capacity of twenty or more passengers which are operated within ten miles from the limits of any municipality with a population of seventy thousand or more inhabitants, according to the United States Census for 1940, by any electric utility company which regularly provides transportation service within the municipality itself. Item (d) does not permit the substantial duplication of any franchise or license in effect at the time service is undertaken by the electric utility company; or
  - e. Used by a county to transport passengers or property.
2. Additionally, the commission does not have jurisdiction over any class of for-hire operations which has been or hereafter may be specifically exempted in the Code of Laws of South Carolina.

**SUBARTICLE 4**  
**APPLICATION PROCEDURES FOR CERTIFICATES**

103-130. Applications Required.

Any person desiring to operate in this State as a motor carrier for hire first shall file an application for the type of certificate needed (Certificate of PC&N, Certificate of FWA, Charter Bus Certificate) with the commission on forms to be furnished by the commission. All required information on the application forms must be correctly completed before filing of such application will be accepted.

103-131. Responsibility Fixed.

103-132. Publication of Notice of Filing.

Public notice will be given when any application for a Certificate of PC&N or FWA or to amend a Certificate of PC&N or FWA has been filed with the commission, except for applications seeking a Class C Certificate of PC&N. Such notice must be published in newspapers of general coverage in the affected territory, must be in the form prescribed by the commission, and must be published at the applicant's expense. All publication requirements must be complied with and affidavits of publication must be returned to the commission's offices prior to a hearing date being set. If required, a hearing is set and all parties of record will be notified of the hearing date, time, and place. An applicant seeking a Class C Certificate to operate vehicles will not be required to publish a notice of filing.

103-133. Proof Required to Justify Approving an Application. Applications cannot be amended within forty-eight (48) hours of a scheduled hearing, unless leave to amend the application is granted by the commission.

1. PC&N (Household Goods or Hazardous Waste for Disposal). An application for a Certificate of PC&N or to amend a Certificate of PC&N to operate as a carrier of household goods or hazardous waste for disposal by motor vehicle may be approved upon a showing that the applicant is fit, willing, and able to appropriately perform the proposed service and that public convenience and necessity are not already being served in the territory by existing authorized service. The public convenience and necessity criterion must be shown by the use of shipper witnesses, if the applicant applies for authority for more than three contiguous counties. If the commission determines that the public convenience and necessity is already being served, the commission may deny the application. The following criteria should be used by the commission in determining that an applicant for motor carrier operating authority is fit, willing, and able to provide the requested service to the public:

a. FIT. The applicant must demonstrate or the commission determines that the applicant's safety rating is satisfactory. This can be obtained from U.S.D.O.T. and S.C.D.P.S. safety records. Applicants should also certify that there are no outstanding judgments pending against such applicant. The applicant should further certify that he is familiar with all statutes and regulations, including safety operations in South Carolina, and agree to operate in compliance with these statutes and regulations.

b. ABLE. The applicant should demonstrate that he has either purchased or leased on a long-term basis necessary equipment to provide the service for which he is applying. Thirty days or more shall constitute a long-term basis. The applicant must undergo an inspection of all vehicles and facilities to be used to provide the proposed service. The applicant should also provide evidence in the form of insurance policies or insurance quotes, indicating that he is aware of the commission's insurance requirements and the costs associated therewith. Additionally, the applicant can file a statement indicating the applicant's purpose for seeking a Class E Certificate, the applicant's 5-year plan if the commission grants the applicant a Class E Certificate, and such other information that may be contained in a business proposal.

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c. WILLING. Having met the requirements as to "fit and able," the submitting of the application for operating authority would be sufficient demonstration of the applicant's willingness to provide the authority sought.

2. FWA. An application for a Certificate of FWA to operate as a carrier of household goods within the limits of a municipality may be approved upon a showing that the applicant is fit, willing, and able to perform the proposed service, as delineated by the criteria for fit, willing, and able set out in 103-133 (1)(a),(b), and (c) above. No showing as to the public convenience and necessity need be made.

3. For Contract Carrier Authority.

a. If the application is for a Class F Certificate of PC&N to operate as a contract carrier of hazardous waste for disposal or is for an amendment or addition thereto, two copies of the written bilateral contract between the supporting shipper and the applicant must accompany the application setting forth the services proposed, the rates and charges, the duration of the contract, the parties thereto, the territory to be served, and the commodities to be hauled.

b. An application for a Class F Certificate of PC&N to operate as a contract carrier or an addition thereto may be approved upon a showing that the applicant is fit, willing, and able to appropriately perform the proposed service, and that public convenience and necessity are not already being served in the territory by existing authorized service. The public convenience and necessity criterion must be shown by the use of shipper witnesses, or by such other methodology as may be approved by the commission, other than the testimony of the applicant. If the commission determines that the public convenience and necessity is already being served, the commission may deny the application. (To determine whether a carrier is fit, willing, able, see R. 103-133(1).)

c. Once a contract with a particular shipper is approved by the commission, that contract may be renewed periodically by merely filing two copies thereof with the commission and serving the same number of copies on ORS, provided, however, that in no event will the renewal contract alter in any way the commodities authorized to be hauled or the territory authorized to be served. Any alteration of contract terms or rates must also receive the specific approval of the commission which may or may not require notice.

4. PC&N (Passengers).

An application for a Certificate of PC&N or to amend a Certificate of PC&N to operate as a carrier of passengers by motor vehicle may be approved upon a showing that the applicant is fit, willing, and able to appropriately perform the proposed service, provided however, if an intervenor shows or if the commission determines that the public convenience and necessity is already being served, the commission may deny the application. The following criteria should be used by the commission in determining that an applicant for motor carrier operating authority is fit, willing, and able to provide the requested service to the public:

a. FIT. The applicant must demonstrate or the commission determines that the applicant's safety rating is satisfactory. This can be obtained from U.S.D.O.T. and S.C.D.P.S. safety records. Applicants should also certify that there are no outstanding judgments pending against such applicant and that applicant is financially fit to do business as a certified carrier. The applicant should further certify that he is familiar with all statutes and regulations, including safety regulations, governing for-hire motor carrier operations in South Carolina and agree to operate in compliance with these statutes and regulations.

b. ABLE. The applicant should demonstrate that he has purchased, leased, or otherwise arranged for obtaining necessary equipment to provide the service for which he is applying. The applicant should also provide evidence in the form of insurance policies or insurance quotes, indicating that he is aware of the commission's insurance requirements and the costs associated therewith.

c. WILLING. Having met the requirements as to "fit and able", the submitting of the application for operating authority would be sufficient demonstration of the applicant's willingness to provide the authority sought. The applicant must demonstrate a willingness to comply with all commission regulations.

5. Charter Bus Certificate. An application for a Charter Bus Certificate or to amend a Charter Bus Certificate to operate as a carrier of 16 or more passengers by motor vehicle may be approved upon a showing that the applicant meets the insurance requirements of the commission and the safety requirements of the South Carolina Department of Public Safety, USDOT and other federal safety regulations and guidelines.

6. PC&N (Non-Emergency Vehicles).

In addition to meeting the requirements set out in 103-133(4) above and any and all definitions addressed in the Federal Motor Carrier Safety Regulations (Code of Federal Regulations, Title 49, Parts 40 and 355-397) hereinafter known as the Carrier Safety Administration (CSA) Safety Regulations, applicants for a Certificate of PC&N for non-emergency vehicles must meet the following requirements:

A. Driver Qualifications/Requirements.

1. Carrier must comply with Part 391-Qualifications of Drivers, CSA Safety Regulations, excluding 391.49, in addition to the following requirements:

a. Driver must possess at least a current American Red Cross Standard First Aid and CPR Certificate or its equivalent. Records of such must be kept on file at company's primary place of business within South Carolina.

b. Driver must be in compliance with all OSHA regulations.

c. Driver must be adequately trained in the use of all vehicle installed safety equipment such as two-way radios, first aid kits, fire extinguishers, and other equipment as outlined in the Vehicle Requirement Section of these Regulations.

d. Driver must be able to physically perform actions necessary to assist persons with disabilities, including wheelchair users.

e. Driver must wear a professional uniform and photo identification badge that easily identifies the driver and the company for whom that driver works.

f. Driver must complete 12 hours of in-service training annually in the area of safety. Records of such must be kept on file at company's primary place of business within South Carolina.

B. Vehicle Requirements.

1. Any vehicle purchased on or after the effective date of these regulations shall comply with the following vehicle requirements. The Applicant must certify on a commission prescribed form that its vehicles meet, at a minimum, the following standards.

a. All Non-Emergency Vehicles shall be equipped with at least the following:

(1) Approved seat belt assemblies for all passenger seating locations.

(2) Interior and exterior lighting which must meet ADA requirements set forth in Title 49, Parts 37 and 38 C.F.R. In addition, all standard motor vehicle equipment must be in working order (i.e. all lamps, windshield wipers, horn, emergency flashers/hazard lights, and all other standard motor vehicle equipment.)

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(3) Locking devices for all doors and all door latches which shall be in operation from inside and outside on all vehicles manufactured and first registered after January 1, 1980.

(4) Foot stool or extra step for loading.

(5) Sanitary and functional seat covers.

(6) Spare wheel, jack and tire tools necessary to make minor repairs, except when operating service cars are immediately available.

(7) Current maps of streets in the area where service is provided.

(8) Fire extinguisher, Type ABC, 4lbs. or more dry powder or carbon dioxide, inspected annually. Proof of annual inspection shall be attached to each fire extinguisher.

(9) Identification display of the name under which the Non-Emergency Vehicle is doing business or providing service, on both sides and the rear of each such vehicle in letters that contrast sharply with the van's background and are easily read from at least 20 feet. All Non-Emergency Vehicles operated under the same certificate shall display the same identification.

(10) Exterior rearview mirrors affixed to both sides of the vehicle and in working order. There may not be any chips, cracks, or anything else that limits the driver's view.

(11) A two-way radio, mobile or cellular phone equipment which shall be included in the vehicle while patients are being transported. All two-way radios must be in contact with a dispatcher or someone acting as a dispatcher, i.e., must have instant access to standard phone lines and the ability to summon immediate police, fire or ambulance assistance, if needed.

(12) A "No Smoking" sign prominently displayed in the patient compartment if oxygen tanks, whether patient tanks or vehicle equipment, are carried. If oxygen tanks are carried, they must be readily accessible and securely stored.

(13) Heating and cooling systems which meet ADA requirements set forth in Title 49, Parts 37 and 38 C.F.R.

(14) Emergency warning devices.

(15) Any other emergency and safety equipment required in order to meet ADA requirements set forth in Title 49, Parts 37 and 38 C.F.R.

b. In addition to the requirements of subsection (a) above, all wheelchair vans shall be equipped with at least the following:

(1) A loading entrance in compliance with ADA requirements and standards.

(2) Fasteners to secure the wheelchair(s) or stretcher(s) to the vehicle which must be of sufficient strength to prevent the chair or stretcher from rotating and to prevent the chair or stretcher wheels from leaving the floor in case of sudden movement and to support chairs, stretchers and patients in the event the vehicle is overturned.

(3) A lift or ramp with a load capacity as specified by ADA requirements and standards.

2. Any vehicle manufactured after the effective date of these regulations shall comply with the vehicle requirements set forth in Title 49, Parts 37 and 38 C.F.R. and FMVSS.



C. Vehicle Maintenance Requirements.

All carriers must comply with Part 396-Inspection, Repair, and Maintenance of CSA Safety Regulations, excluding 396.9, 396.11(d) as to the last phrase "or to any motor carrier operating only one motor vehicle", and excluding 396.15.

D. Drug Testing Requirements.

All carriers must implement a verifiable drug testing program for drivers. Pre-employment, post-accident, and random drug screens shall be mandatory.

E. Minimum Periodic Inspection Standards.

1. All carriers must comply with Appendix G to Subchapter B-Minimum Periodic Inspection Standards of CSA Safety Regulations.

2. A vehicle does not pass inspection if deficient under any standard included in 1 above. Further, a vehicle does not pass an inspection if any defects or deficiencies are detected with reference to the wheelchair lift or any component relating to the loading of passenger or patient into the vehicle.

3. All carriers are subject to the regulations found in Part 396, CSA Safety Regulations. In addition, any ORS representative or any officers, drivers, agents, representatives, and employees directly concerned with the inspection or maintenance of motor vehicles may recommend that a vehicle be put "out of service" for defects or deficiencies detected with reference to Appendix G to Subchapter B-Minimum Periodic Inspection Standards and defects or deficiencies detected with reference to the wheelchair lift or any component relating to the loading of a passenger or patient into the vehicle.

F. Schedule of Minimum Insurance Limits.

1. Insurance policies and surety bonds for bodily injury and property damage will have limits of liability not less than the following:

a. Liability Combined Each Occurrence \$1,000,000

b. Medical Payments/Each Person \$1,000

7. PC&N (Class C-Taxi and Class C-Charter Carriers).

In addition to meeting the requirements set out in 103-133(4) above, applicants for a Certificate of PC&N for Class C Taxi and Class C Charter authority, as well as all vehicle drivers operating under such authority, must meet the following requirements and provide the following information to the ORS upon request:

A. Owner and Driver Qualifications/Requirements.

1. All drivers must be a minimum of 18 years of age.

2. Driving Record – A certified copy of the driver’s three (3) year driving record issued by the South Carolina Department of Motor Vehicles and such record from the DMV of the state in which the driver is or has been domiciled for such period.

3. State Criminal Background Check – A criminal history background check from the state where the driver currently lives.

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4. Drivers License – All drivers operating a vehicle under a Class C Taxi or Class C Charter certificate must have in their possession at the time of such operation a valid drivers license issued by the South Carolina Department of Motor Vehicles or the current state of residence of the driver.

5. Sex Offender Registry – All Class C Taxi Certificate and Class C-Charter Certificate holders are prohibited from employing or leasing vehicles to drivers who are registered, or required to be registered, as a sex offender with the South Carolina State Law Enforcement Division (SLED) or any national registry of sex offenders. All certificate holders who are registered, or required to be registered, as a sex offender with SLED or any national registry of sex offenders are prohibited from driving a taxi cab or limousine. Any driver who is placed on a Sex Offender Registry shall notify the ORS and the certificate holder under which he operates of his status and shall immediately cease to operate his taxi cab or limo.

6. Engaging in Business – An applicant for a Class C Taxi Certificate shall designate on his/her application those counties it can reasonably supply the service requested. Any applicant who has not provided the service requested in its application within 90 days of approval to begin operation of that certificate, without good cause shown or who has not filed with the commission an amended application, shall have its authority revoked.

### B. Owner and Driver Conduct/Vehicle Qualifications.

1. Owners and drivers shall inspect the vehicle that the driver is operating daily to ensure that it can be operated safely.

2. Owners and drivers shall ensure that the interior of the vehicle is kept in a clean and sanitary condition.

3. Owners and drivers shall ensure that the general mechanical condition of his/her vehicle is in good operating condition and mechanical repair.

4. Owners and drivers shall ensure that the vehicle exterior meets the requirements set forth in Regulation 103-153.

5. Owners and drivers shall ensure that jack, spare tire, and other equipment in the trunk or other storage area of the vehicle is secured, and covered with appropriate material to avoid damage to a passenger's luggage or other possessions.

6. Duty to Transport Orderly Passengers – Each driver shall transport all orderly passengers willing and able to pay the required fare, requesting his or her services to the passenger's requested destination.

7. Passenger Discharge – Drivers shall not dismiss, discharge, or otherwise require any passenger to leave the vehicle other than at the passenger's requested destination without reasonable cause. For this purpose, "cause" means, but is not limited to, the vehicle becoming disabled, the passenger becoming disorderly by refusing to pay the authorized fare, or dangerous driving conditions. A driver who requires a passenger to leave the vehicle other than at the passenger's requested destination shall do so only at a well-lit public place, or (if the vehicle has become disabled) to another vehicle, and shall immediately notify his or her affiliated company of all the details of the incident.

8. Receipt – Each driver shall, upon request of the passenger making payment, and upon receipt of full payment for the authorized fare, give a receipt to the passenger making the payment.

9. Lost and Found – Any property left by a passenger in a vehicle shall be reported by the driver to his or her affiliated company within 30 minutes after its discovery, and thereafter returned to the passenger or the affiliated company as soon as possible, but in any event within 12 hours after its discovery, at the passenger's expense.

10. Identification Badges – While in operation, each driver shall have attached to the interior of the vehicle, in such a way as to be visible by passengers in the rear seat of the taxi, some form of picture identification. Such identification should display as a minimum the driver’s name, picture, and the name of the holder of authority under a Certificate of PC&N under which the driver is operating. This paragraph is inapplicable to Class C-Charter Carriers.

11. Driving Record – Each driver shall, not less frequently than annually, provide an updated copy of his or her motor vehicle driving record to the company he or she is affiliated with or leasing.

12. Manifests.

A. The driver of a taxi cab shall keep a daily manifest. The manifest shall contain the following information, which shall be recorded at the time specified:

1. The hour and date at which the vehicle becomes available for use as a taxi cab, the name of the driver and the make, registration number of such vehicle shall be recorded before the driver proceeds to pick up his first passenger or package delivery.

2. The time and place of commencement and the number of passengers or packages shall be recorded when such passengers or packages are picked up.

3. The name and place of delivery of the passengers or packages and the amount of the fare charged shall be recorded immediately after each trip is terminated.

4. The time and place shall be recorded immediately after the driver ceases to operate the taxi cab for hire for the day.

103-134. When Hearing May Be Held.

When an application for a Certificate of PC&N is submitted and there is no opposition, the commission may hold a hearing if it deems necessary for the purpose as it shall determine, including the issue of fitness, willingness, or ability of the applicant to appropriately perform the proposed service, or the issue of whether the public convenience and necessity are already being served. When an application for a Certificate of FWA is submitted and there is no opposition, a hearing may be held if necessary, but the issue of whether the public convenience and necessity is already being served shall not be considered.

103-135. Sale, Lease or Other Transfer of a Certificate of PC&N or FWA.

1. Application Required. Application for approval of sale, lease or other transfer of a Certificate of PC&N or FWA shall be filed with the commission and served on the ORS. The application forms shall be provided by the commission. No application is deemed filed until all the required information is completed and all the appropriate signatures obtained.

2. Application to Lease a Certificate of PC&N or FWA. If the application is for approval of a lease of a certificate, a copy of the proposed lease agreement must be filed with the application and must contain the entire agreement between the parties. Only one entity may operate at a time per certificate.

3. Application to Sell or Otherwise Transfer a Certificate of PC&N.

a. If the application is for approval of a sale or other transfer of a certificate, a copy of the proposed sales or other transfer agreement must be filed with the application and must contain the entire agreement between

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parties, including (1) an accurate description of the operating rights and other property to be transferred, and (2) the purchase price agreed upon and all the terms and conditions with respect to the payment of the same.

b. No sale or other transfer of a Certificate of PC&N shall be approved by the commission until the transferor (seller) has filed with the commission and served on the ORS a statement under oath showing (1) all assets of the holder of the certificate to be sold, (2) all debts and claims against the transferor (seller) of which such seller has any knowledge or notice, (3) wages due employees of the transferor (seller), (4) unremitted COD collections due shippers, (5) claims for loss of or damage to goods transported or received for transportation, (6) claims for overcharges on property transported, and (7) interline accounts due other carriers. There also shall be filed with the commission and served on the ORS a verified statement from the transferee (purchaser) or an authorized agent or officer thereof, guaranteeing the payment of all just obligations as listed in the sworn statement of the seller. This subsection shall not be applicable to sales by personal representatives of deceased or incompetent persons, receivers, or trustees in bankruptcy under court order.

c. Once a contract with a particular shipper is approved by the commission, that contract may be renewed periodically by merely filing two copies thereof with the commission and serving the same number of copies on ORS, provided, however, that in no event will the renewal contract alter in any way the commodities authorized to be hauled or the territory authorized to be served. Any alteration of contract terms or rates must also receive the specific approval of the commission which may or may not require notice.

4. Proof Required. The commission shall approve an application for lease, sale, or other transfer of a Certificate of PC&N made under this section upon finding (1) that sale, assignment, pledge, transfer, change of control, lease, merger, or combination thereof will not adversely affect the service to the public under said certificate, (2) that the person acquiring said certificate or control thereof is fit, willing, and able to perform such service to the public under said certificate, and (3) that all services under said certificate have been continuously offered and reasonably provided to the public for a period of time not less than twelve months prior to the date of the filing of the application for approval of the sale, lease or transfer of said certificate, or, in lieu thereof, that any suspension of service exceeding thirty (30) days shall have been approved by the commission, seasonal suspensions excepted. No sale, lease, transfer, assignment, or hypothecation of a Certificate of PC&N will be approved where such action would be destructive of competition or would create an unlawful monopoly.

If the application does not contain evidence that the authorized services have been continuously offered and reasonably provided to the public for a period of time not less than twelve (12) months prior to the date of the filing of the application, the application may be denied.

5. Dividing Operating Rights Prohibited by Class E Certificate Holders. Operating rights issued under a commission Class E Certificate may not be split or divided and thereafter sold, transferred, assigned, mortgaged, pledged, or hypothecated by the sale of stock or otherwise, without prior approval of the commission. Leasing of vehicles by Class C Taxi Certificate holders shall not be considered splitting or dividing operating rights.

6. It is unlawful for any person to sell, lease, or otherwise transfer a Class E Certificate of PC&N issued or authorized to be issued after July 1, 1983, under the provisions of Chapter 23 of Title 58 for money, goods, services, or any other thing of value. Class C Taxi Certificate holders who lease taxi cabs to drivers who have signed agreements agreeing to comply with commission regulations shall not be considered to have leased or transferred its authority. A certificate may be transferred incident to the sale or lease of property or assets owned or used by a regulated motor carrier, provided the approval of the commission for the transfer of the certificate is first obtained and that the certificate itself is not transferred for value or utilized to enhance the value of other property transferred. Nothing herein shall affect the sale, lease, or otherwise transfer of a certificate of public convenience and necessity issued prior to July 1, 1983.

7. Application to sell or otherwise transfer a Certificate of FWA.

a. If the application is for approval of a sale or other transfer of a certificate, a copy of the proposed sales or other transfer agreement must be filed with the application and must contain the entire agreement between parties, including (1) an accurate description of the operating rights and other property to be transferred, and (2) the purchase price agreed upon and all the terms and conditions with respect to the payment of the same.

b. The transferee must show that it is fit, willing, and able as per these regulations.

103-136. Protest.

Protest Served on commission, ORS and Applicant. The original and any accompanying documents of the protest must be deposited in the United States Mail addressed to the commission and ORS or delivered to the commission and ORS within the time established for filing protests, and it must appear in some statement attached to the protest that a copy thereof has been deposited in the United States Mail, addressed to the applicant postage prepaid or delivered to the applicant, and a copy sent to his attorney, if any, appearing in the notice of filing.

103-137. Amendments.

103-138. Restrictions, Limitations, and Terms.

1. Restrictions, limitations, and terms will not be attached to any Certificate of PC&N unless they are reasonable and are required by public convenience and necessity.

2. The commission is not, and cannot be, bound by restrictions agreed to by the parties unless approved by the commission, and no agreement shall be approved which achieves results inconsistent with the public interest and inimical to practical and effective regulation.

103-139. Processing of Application by Applicant.

Without good cause shown, any application for a Certificate of PC&N, FWA, or a Charter Bus Certificate submitted but not processed in compliance with the commission's instructions by the applicant within 90 days of receipt of the notice of filing, may be dismissed.

## **SUBARTICLE 5 OPERATIONS OF CERTIFICATED MOTOR CARRIERS**

103-150. Beginning Operations Under a Certificate.

1. Beginning Operations Under a Certificate of PC&N.

a. Registration, Insurance, and Tariffs Required. An Order of the commission, approving an application for a Certificate of PC&N, or the issuance of a Certificate of PC&N does not within itself authorize a carrier to begin operations. Operations are unlawful until the carrier has complied with the law by:

1. Registering its motor vehicles with the ORS;

2. Providing proof of insurance, self-insurance as verified by the S.C. Department of Motor Vehicles or a surety bond with the ORS in the required amounts covering its rolling equipment for the protection of the public;

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3. Filing tariffs and schedules of rates, fares, and charges to be made for the transportation service authorized with the commission and the ORS; and

4. Undergoing the required inspection of vehicles and facilities. (Household Goods and Hazardous Waste for Disposal.)

b. **Must Begin Operations Within 90 Days.** Unless a motor carrier complies with the foregoing requirements and begins operating as authorized within a period of ninety (90) days after the commission's order approving the application becomes final, and unless the time is extended in writing by the commission upon written request, the operating rights therein granted will cease.

c. Upon issuance of a Certificate, the ORS shall provide written notice to the commission stating that the carrier has complied with all provisions of the commission's order.

2. **Beginning Operations Under a Certificate of FWA.** An order of the commission approving an application for a Certificate of FWA or the issuance of a Certificate of FWA does not within itself authorize a carrier to begin operations. Operations are unlawful until the carrier has complied with the law by:

a. Providing evidence of an acceptable safety rating.

b. Providing proof of insurance or a surety bond with the ORS in the required amounts covering its rolling equipment for the protection of the public.

c. Undergoing the required inspection of vehicles and facilities.

3. **Beginning Operations under a Charter Bus Certificate.**

An order of the commission approving an application for a Charter Bus Certificate or the issuance of a Charter Bus Certificate does not within itself authorize a carrier to begin operations. Operations are unlawful until the carrier has complied with the law by:

a. Providing evidence of an acceptable safety rating.

b. Providing proof of insurance or a surety bond with the ORS in the required amounts covering its rolling equipment for the protection of the public.

4. **Vehicle Appearance, Serviceability, and Operation** – No person shall operate a taxi cab or limousine unless such taxi cab or limousine meets the following requirements and all owners shall maintain a taxi cab or limousine in accordance with the following requirements:

a. All taxi cab and limousine windows must be free of cracks and all in working order for the passenger to raise or lower as they wish.

b. All taxi cab and limousine drivers shall keep their vehicles free from disfiguring damage to the interior of the vehicle, including significant rust, seat tears or holes and falling or torn headliners.

c. All taxi cab and limousine doors, lights, and safety equipment shall be maintained in good operating condition. All seatbelts shall be visible and available for use by passengers in both the front and rear seats for each and every fare.

d. All taxi cabs and limousines shall be equipped with doors which fasten in a manner so that they may be readily opened from the inside by a passenger.

- e. All taxi cab and limousine owners and drivers shall keep the interior and exterior of his or her taxi cab or limousine in a clean and sanitary condition at all times.
- f. All taxi cab and limousine owners and drivers shall ensure that all vehicle systems are in safe working order prior to the commencement of work each day.
- g. No taxi cab or limousine driver or owner shall fasten or lock the doors of a taxi cab or limousine so that it is impossible for a passenger to open them from the inside.
- h. Each taxi cab or limousine owner or driver shall search the interior of the taxi cab or limousine at least once each day for articles left in the cab. The driver shall immediately take such property to the principal office of the certificate holder for safekeeping and proper disposition.
- i. No taxi cab driver shall operate a taxi cab for more than twelve hours in any twenty-four hour period.

103-151. Registration of Motor Vehicles.

1. Registration and License Fee Required. Before beginning operations as a motor carrier, all motor vehicles to be used in the operation must be registered with the ORS by completing the appropriate forms as provided by the ORS and by paying the appropriate license fees as set forth in Article III of the Motor Vehicle Carrier Law.
2. Adding Motor Vehicles to Operation. New or additional motor vehicles may be added to an operation at any time by appropriately registering the motor vehicle and paying the appropriate license fee.
3. Transferring Permit Cards and Decals. The permit card for a motor vehicle may be transferred to another motor vehicle upon presentation of the vehicle permit card to the ORS and payment of the additional permit fee, if any, provided however, a tractor permit card may not be transferred to a truck. No refund of fees will be made in transferring vehicle permit cards and decals. Transferring license permit cards and decals between vehicles without the prior approval of the commission is prohibited.
4. Motor Vehicles to Be Re-registered. All registered motor vehicles to be continued in service must be re-registered each year as follows:

Motor carriers transporting passengers must provide a list of and re-register the motor vehicles used in their operations and must pay the appropriate license fee, semiannually, in advance, on or before January 1 and July 1 of each year.

103-152. Registration of Motor Vehicles Domiciled in South Carolina by Interstate Motor Carriers of Passengers.

Any for-hire motor carrier transporting passengers in interstate commerce which desires to domicile or base any power units in South Carolina, whether owned, leased, or otherwise obtained, must first apply for authorization from this commission corresponding to the type operation which it proposes to conduct. Where it is shown that the motor carrier has STB authority to perform the transportation service proposed, that the motor carrier proposes to transport only interstate movements of passengers that have been exempted from STB regulation, or that the motor carrier proposes to haul only interstate shipments of property or passengers within STB exempt zones, the commission will approve the application without hearing and issue to the motor carrier the appropriate authorization, and thereupon, the motor carrier shall register its motor vehicles based, domiciled, or located in this State in accordance with the provisions of 103-151 and file evidence that the public is protected from bodily injury or property damage as provided in Subarticle 6.

103-153. Marking or Identification of Vehicles.

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1. **Marking of Vehicles Required.** No carrier regulated by the Public Service Commission shall operate any motor vehicle upon the highways in the transportation of property or passengers for compensation unless the name, or trade name, place of principal office, and PSC I.D. number appear on both sides of such vehicle in letters and figures not less than three (3) inches high.

SAMPLE: Richard Skinner Trucking Company Nichols, South Carolina

SCPSC #1234.

2. **Legible Placards or Printing May Be Used.** The marking required may be printed on the vehicle or on legible placards securely fastened on both sides of the vehicle. In case of tractor-trailer units, the markings must appear on the tractor. Every vehicle used by a carrier in his operation whether owned, rented, leased, or otherwise obtained must be marked or identified as provided herein.

3. **Marked as Required by the STB.** If the carrier is engaged in both interstate and intrastate commerce and is marked as required by the STB, then the carrier will be deemed to be in full compliance with this commission's requirements.

### 103-154. License Decals and Vehicle Permit Cards.

All motor vehicles, including substitute or emergency vehicles operated under a Certificate of PC&N, shall have maintained in such vehicles a permit issued by the ORS, and passenger vehicles shall have displayed on the front windshield of the power unit of such vehicles the license decals as issued by the ORS upon proper registration of the vehicle.

### 103-155. Transfer of Certificate of PC&N or Certificate of FWA Without commission Approval Prohibited.

No certificate or rights thereunder shall be sold, assigned, leased, transferred, mortgaged, pledged, or hypothecated, by the sale of stock or otherwise, unless first authorized by the commission as provided in 103-135.

### 103-156. Unauthorized Use of Operating Rights Prohibited.

All motor carriers will be held to strict account for the use of their operating rights, and to permit the use of the same by others for the transportation of persons or property for compensation without prior approval of the commission shall be deemed just cause for the revocation of such rights. This rule positively forbids the party to whom operating rights have been granted from permitting others to use the name or operating authority of such party without prior approval of the commission, or until execution of a proper lease agreement as described in R. 103-220.

### 103-157. Duplication of Authority.

### 103-158. Issuance of Bills of Lading.

All holders of Certificates of PC&N and FWA, upon receipt of freight, shall issue and deliver, or cause to be issued and delivered, to the shipper a bill of lading or other documentation approved by the commission. A combination bill of lading and freight or expense bill or invoice may be issued if it shows all of the information required in 103-159. All bills of lading shall comply with, be governed by, and have the consequences stated in the Uniform Commercial Code of South Carolina and any other applicable and effective provisions of the statutes. All carriers, shippers, consignees, and any lease operators involved in a shipment shall keep a copy of the bill of lading for a minimum of three years.



## 103-159. Contents of Bills of Lading.

Each bill of lading shall show at a minimum the following information:

1. The name of issuing carrier;
2. The date the shipment was received by the carrier;
3. The name and address of the consignor/shipper;
4. The points of origin and destination;
5. The name and address of the consignee/receiver;
6. Declaration of valuation (motor carriers of household goods);
7. The weight by certified public scale, volume, or measurement of the property tendered and received for transportation according to the lawfully applicable rates and charges shown separately by classification;
8. If it relates to a C.O.D. shipment, the amount of the C.O.D. and the name of the individual, corporation, or association who is actually to pay the C.O.D.;
9. Public Service Commission identification number;
10. Financial responsibility information as to insurance coverages;
11. The number of the bill of lading, as numbered consecutively in each motor carrier's own series at the time of printing;
12. Any accessorial or additional service charges in detail, giving size, and kind of equipment, the number of men and total hours of extra labor, and equipment services provided;
13. Rate per hundred weight or rate per hour, whichever is applicable (motor carriers of household goods); and
14. Base liability amount of the carrier for its cargo.

103-160 is deleted.

## 103-162. Bill of Lading to Accompany Shipment.

Each shipment by a freight carrier holding a Certificate of PC&N or FWA must be accompanied by the bill of lading relating thereto or some other procedure authorized by the commission. If two or more trucks are used to transport a single shipment, a separate bill of lading or descriptive instrument must accompany the portion of the shipment contained in each of the trucks and each such bill of lading or descriptive instrument must show, with respect to that portion of the shipment which it accompanies, all information required by 103-159, and must refer specifically to the bill of lading which covers the entire shipment.

## 103-164. Suspension of Operations.

Any suspension of the operations authorized by a duly issued certificate for a period in excess of thirty (30) days may be approved by the commission upon written application of the motor carrier, filed in accordance with 103-830, et seq. Such application must state clearly and concisely the justification for the proposed suspension of service.

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An application for suspension for a period in excess of twelve (12) months, or an application for suspension which, if approved, would result in the continuous suspension of service (e.g., where an approved suspension is in effect at the time the application is filed) for a period in excess of twelve (12) months, may be approved by the commission after such notice, if any, that the commission deems appropriate.

### SUBARTICLE 6 INSURANCE POLICIES AND SURETY BONDS

#### 103-170. Insurance Policy or Surety Bond Required.

1. Before any certificate can be issued and before any motor carrier operations can be conducted thereunder, the motor carrier must provide and have accepted by the ORS evidence of insurance policy or surety bond from an insurance company licensed or admitted to do business in South Carolina or self-insurance in the amounts hereinafter prescribed, which policy or bond shall be conditioned to pay any final judgment recovered against such motor carrier for bodily injuries to or death of any person and/or for loss of or damage to property of others resulting from the negligent operation, maintenance, or use of motor vehicles in transportation subject to the Motor Vehicle Carrier Law, regardless of whether the policy or bond specifically describes such motor vehicle or not. The ORS shall accept evidence of self-insurance in compliance with S.C. Code Ann. §56-9-60. Upon failure of the insurance or bonding company to pay any such final judgment recovered against the insured, the judgment creditor may maintain an action in any court of competent jurisdiction against the insurance or bonding company to compel such payment. The bankruptcy or insolvency of the insured shall not relieve the insurance or bonding company of any of its obligations hereunder. The liability of the insurance or bonding company shall extend to such losses, damages, injuries, or deaths whether occurring on the route or in the territory authorized to be served by the insured or elsewhere within the boundaries of South Carolina. The liability of the insurance or bonding company on each motor vehicle whether such vehicle is specifically described in the policy or bond or not shall be a continuing one notwithstanding any recovery thereunder. Furthermore, nothing contained in the policy or bond or any endorsement attached thereto, nor the violation of any of the provisions of the policy or bond or of any endorsement attached thereto, shall relieve the insurance or bonding company from liability under the policy or bond or from the payment of any final judgment recovered against the insured.

2. Notwithstanding the language in Regulation 103-170(1), the ORS shall accept evidence of an insurance policy, surety bond, or other insurance, including self-insurance, or any other evidence that the public is protected from bodily injury or property damage, which has been filed with and accepted by the STB, in lieu of an insurance policy or surety bond from a company licensed or admitted to do business in South Carolina. The provisions of this regulation shall apply only in the case where the carrier is operating on an interstate basis only.

#### 103-171. Filing Evidence of Bodily Injury and Property Damage Insurance Policy, Self-Insurance or Surety Bond.

1. Evidence of Insurance Filed on Form E. Filing evidence of bodily injury and property damage insurance will be made on Form E, "Uniform Motor Carrier Bodily Injury and Property Damage Liability Certificate of Insurance." (See Form E in 23A S.C. Code Ann. Regs. 38-447) The policy or a copy thereof will not be accepted for filing in lieu of Form E. Self insureds shall have the SCDMV submit a self-insurance certificate in lieu of a Form E.

2. Form F must be attached to Policy. The "Uniform Motor Carrier Bodily Injury and Property Damage Liability Insurance Endorsement," Form F (see Form F in 23A S.C. Code Ann. Regs. 38-447), must be attached to the bodily injury and property damage insurance policy itself. Form F thereby amends the terms of such policy to conform the policy with requirements not less than those expressed in 103-172 and with other

applicable provisions of these rules. Self insureds shall have the SCDMV submit a self-insurance certificate in lieu of a Form F.

3. Evidence of Surety Bond Filed on Form G. Filing evidence of bodily injury and property damage surety bond will be made on Form G, "Uniform Motor Carrier Bodily Injury and Property Damage Liability Surety Bond" (see Form G in 23A S.C. Code Ann. Regs. 38-447), which insures compliance with limits not less than those in 103-172 and with other applicable provisions of these rules. Self insureds shall have the SCDMV submit a self-insurance certificate in lieu of a Form G.

103-172. Schedule of Minimum Limits.

Insurance policies and surety bonds for bodily injury and property damage will have limits of liability not less than the following:

MOTOR CARRIERS, KIND OF LIABILITY LIMITS

EQUIPMENT & CAPACITY

PASSENGER

1 to 7 Passengers \$25,000.00 \$50,000.00 \$25,000.00

8 to 15 Passengers \$25,000.00 \$100,000.00 \$25,000.00

16 or More Passengers \$25,000.00 \$300,000.00 \$25,000.00

FREIGHT (All motor vehicles used in the transportation of property.)

1. 10,000 OR MORE POUNDS GVWR.

a. NON-HAZARDOUS \$750,000 per incident

b. HAZARDOUS \$5,000,000 per incident

(Hazardous substances, as defined in 49 CFR 171.8; Class A or B explosives; liquefied compressed gas or compressed gas; or highway route controlled radioactive materials as defined in 49 CFR 171.455.)

c. HAZARDOUS \$1,000,000 per incident

(Oil listed in 49 CFR 172.101; hazardous waste, hazardous materials, and hazardous substances defined in 49 CFR 172.101 but not mentioned in 1.(b) or 2.(b).)

2. LESS THAN 10,000 POUNDS GVWR.

a. NON-HAZARDOUS \$500,000 per incident

b. HAZARDOUS \$5,000,000 per incident

(Any quantity of Class A or B explosives or highway route controlled quantity radioactive materials as defined in 49 CFR 173.455.)

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103-173. Cargo Insurance or Surety Bond Required of Motor Carrier.

1. Terms of Insurance or Bond and Minimum Limits. Before any Class E Certificate can be issued and before any motor carrier operations can be conducted thereunder, the Class E motor carrier must procure a cargo insurance policy or cargo surety bond from an insurance company licensed or admitted to do business in this state and mail to the ORS evidence of such insurance or bond on forms prescribed by 23A S.C. Code Ann. Regs. 38-447, such policy or bond being conditioned upon such carrier making compensation to shippers or consignees for loss of or damage to all property belonging to shippers or consignees which comes into the possession of such carrier in connection with its transportation service within South Carolina, regardless of whether the policy or bond specifically describes the motor vehicle or not. Within the limits of liability herein after set forth, it is further required that no condition, provision, stipulation, or limitation contained in the policy or bond or in any endorsement thereon or violation thereof shall affect in any way the right of any shipper or consignee, or relieve the insurance or bonding company from liability for the payment of any claim for which the insured may be held legally liable to compensate shippers or consignees, irrespective of the financial responsibility or lack thereof or insolvency or bankruptcy of the insured. Moreover, the liability of the insurance or bonding company extends to such losses or damages whether occurring on the route or in the territory authorized to be served by the insured or elsewhere in South Carolina. Furthermore, the liability of the insurance or bonding company for the following minimum limits shall be a continuing one notwithstanding any recovery hereunder:

- a. For loss of or damage to property carried on any one motor vehicle ..... \$2,500.00
- b. For loss of or damage to or aggregate of losses or damages of or to property occurring at any one time and place ..... \$5,000.00

2. Carriers of Extremely Low Valued Commodities Excepted.

Motor carriers who possess authority to haul only commodities of extremely low value are not required to comply with the provisions of this rule.

103-174. Filing Evidence of Cargo Insurance or Surety Bond.

1. Evidence of Cargo Insurance Filed on Form H. Evidence of cargo insurance will be filed on Form H, "Uniform Motor Carrier Cargo Certificate of Insurance." (See Form H in 23A S.C. Code Ann. Regs. 38-447) The policy or a copy thereof will not be accepted for filing in lieu of Form H.

2. Form I Must be Attached to Cargo Policy. The "Uniform Motor Carrier Cargo Insurance Endorsement," Form I (see Form I in 23A S.C. Code Ann. Regs. 38-447), must be attached to the cargo insurance policy itself. Form I thereby amends the terms of such policy to conform with requirements not less than those expressed in 103-173 and with other applicable provisions of these rules.

3. Evidence of Surety Bond Filed on Form J. Evidence of cargo surety bond will be filed on Form J, "Uniform Motor Carrier Cargo Surety Bond" (see Form J in 23A S.C. Code Ann. Regs. 38-447), which insures compliance with the terms of 103-173 and with other applicable provisions of these rules.

103-175. Revocation of Certificate.

A failure to file evidence of insurance, self-insurance or surety bond shall be just cause for the commission, without further evidence or hearing, to suspend its order granting authority or to suspend the certificate or any license issued to the motor carrier. A failure to keep all insurance, self-insurance or surety bond in full force and effect shall result in automatic suspension, upon receipt of an affidavit from the ORS with supporting evidence, of the commission's order granting authority, the certificate, and any license issued to the motor

carrier, with the suspension becoming operative as of the effective date of the cancellation of the motor carrier's insurance, self-insurance or surety bond.

103-176. Cancellation of Insurance or Surety Bond.

1. Thirty (30) Days' Notice Required. Any insurance company, surety bond company, or motor carrier which desires to cancel a policy or bond issued to a motor carrier subject to these rules can do so only after giving the ORS not less than thirty (30) days notice. The thirty (30) days will begin to run once the notice is received by the ORS.

2. Form K or Form L Used to Give Notice of Cancellation. Notification of cancellation will be made on forms prescribed by the commission. Form K, "Uniform Notice of Cancellation of Motor Carrier Insurance Policies" (see Form K in 23A S.C. Code Ann. Regs. 38-447), will be used to notify the ORS of cancellation of an insurance policy, and Form L, "Uniform Notice of cancellation of Motor Carrier Surety Bonds" (see Form L in 23A S.C. Code Ann. Regs. 38-447), will be used to notify the ORS of cancellation of a surety bond.

103-177. Name of Insured.

Certificates of insurance, self-insurance and surety bonds shall be issued in the full and correct name as that name appears on the application or certificate of the motor carrier.

103-178. Number of Copies Required.

Certificates of insurance, self-insurance notices of cancellation, and surety bonds must be provided to the ORS in triplicate.

103-179. Coverage to be Continuous.

103-180. Commission to Prescribe Forms.

Endorsements for policies of insurance and surety bonds, certificates of insurance, and notices of cancellation will be in the form prescribed and approved by the commission.

103-181. Workers' Compensation Insurance.

**SUBARTICLE 7  
TARIFFS**

103-190. Tariffs Must be Approved Before Commencement of Operations.

1. No motor freight carrier who operates under a Certificate of PC&N may operate or perform any service under its operating authority until rates, fares, charges, classifications, and rules for the services to be performed shall have been approved by the commission.

2. All tariffs for motor carriers of household goods will include charges and references to the following services (if appropriate for the particular move):

a. Transportation Charges.

b. Additional Services.

1. Bulky Article Charges

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2. Elevator or Stair Carry
3. Excessive Distance or Long Carry Charges
4. Packing and Unpacking
5. Labor Charges Regular and Overtime Charges
6. Piano Charges
7. Pick-Up and Delivery Extra
8. Waiting Time
9. Articles, Special Servicing

### **c. Rules and Regulations.**

1. Claims (to include time frames for settlement)
2. Value, Declaration of
  - (i) Basic Amount
  - (ii) Insurance for Excess
3. Value, Excess
4. Computing Charges
5. Governing Publications
6. Storage-in-Transit
7. Bill of Lading, Contract Terms, and Conditions

### **103-191. Commission to Establish Rates, etc.**

1. The commission shall make, fix, establish, or allow just and reasonable rates, fares, charges, classifications, and rules for all motor carriers subject to its rate jurisdiction.
2. As often as circumstances may require, the commission upon notice and hearing, if deemed necessary, from time to time may change or revise, or cause to be changed or revised, any rates, fares, charges, classifications, and rules of a carrier who operates under a Certificate of PC&N.
3. Carriers of hazardous waste for disposal and holders of a Class C Certificate need only file maximum rates with the commission and provide a copy to the ORS.

### **103-192. Rates Must be Just and Reasonable.**

## 103-193. Hearing and Publication on New Rate Schedule.

1. When Hearing Held. Whenever there shall be filed with the commission any tariff stating a new individual or joint rate, fare, charge, rule, or classification for the transportation of passengers or property by motor carrier operating under a Certificate of PC&N or any rule, regulation, or practice affecting such rate, fare, or charge, or the value of the service thereunder, the commission, upon complaint of any interested party or upon its own initiative, if it so orders, without answer or other formal pleading by the interested carrier or carriers, but upon reasonable notice, may enter upon a hearing concerning the lawfulness of such rate, fare, or charge, or such rule, regulation, or practice.

2. When Publication Required. Whenever any new or changed rate, fare, charge, rule, or classification is filed, the commission may, in its discretion, require the filing party or parties to give notice of such filing by publishing once, a notice in the form prescribed by the commission, in newspapers of general coverage in the affected territory. If publication is required, affidavits of publication must be returned to the commission's offices as evidence of compliance with such publication requirement.

## 103-194. Criteria for Establishment of Rates.

## 103-195. Duties of Class E Household Good Movers As to Service and Regulations.

Every motor carrier of property operating under a Certificate of PC&N and FWA shall provide safe and adequate service, equipment, and facilities for the transportation of property, and shall establish, observe, and enforce just and reasonable regulations and practices relating thereto and to the manner and method of presenting, marking, packing, and delivering property for transportation, the facilities for transportation, and all other matters relating to or connected with the transportation of property.

## 103-196. Maintenance of Copies of Tariffs.

Every motor carrier operating under a Certificate of PC&N shall maintain at each of its principal places of business in the state and make available for inspection to the public at all reasonable times, all of its tariffs containing rates, charges, classifications, and rules or other provisions as filed with and approved by the commission.

## 103-197. Undue Preference Not Permitted.

Unless otherwise specifically exempted by the commission, it shall be unlawful for any motor carrier operating under a Certificate of PC&N or FWA to make, give, or cause any undue or unreasonable preference or advantage to any particular person, port, gateway, locality, or description of traffic in any respect whatsoever, or to subject any particular person, port, gateway, locality, or description of traffic to any unjust discrimination or any undue or unreasonable prejudice or disadvantage in any respect whatsoever.

## 103-198. Variations in Charges Prohibited.

Unless otherwise specifically exempted by the commission, no motor carrier operating under a Certificate of PC&N shall charge, demand, collect, or receive, or cause or permit its agent, servants, or employees to charge, demand, collect, or receive a greater or lesser or different compensation for transportation, or for any service rendered, than the rates, fares, and charges specified in the lawfully applicable tariffs or schedules in effect from time to time; and no motor carrier shall refund or remit in any manner or by any device, directly or indirectly, any portion of the rates, fares, or charges so specified, or extend to any person any privileges, facilities, or services, or do or perform any service, or give, remit, or refund anything of value except in accordance with said lawful tariffs and schedules, or specific order by the commission.

## **472 FINAL REGULATIONS**

### 103-199. Allowances Prohibited.

No motor carrier operating under a Certificate of PC&N shall grant, pay, give, or make any allowance to the owner, shipper, consignor, or consignee of any property or shipment, for any service or instrumentality furnished by the owner, shipper, consignor, or consignee, unless such allowance is prescribed or permitted in a lawfully applicable tariff, schedule, or specific order of the commission. Moves may be performed without charge to valid 501(c)(3) organizations.

## **SUBARTICLE 8 COMMODITIES**

### 103-210. Applications Must Specifically Set Forth Commodities Applied for.

Every applicant for a Certificate of PC&N specifically shall set forth in its application each commodity which it proposes to transport. Upon an adequate showing by proper proof, the ORS after approval by the commission may issue a certificate authorizing motor carrier operations and identifying the commodities authorized to be hauled. These will be household goods, hazardous waste, or both.

1. Household Goods. This group includes personal effects and property used or to be used in a dwelling and similar property if the transportation of such effects or property is:

a. arranged and paid for by the householder, including transportation of property from a factory or store when the property is purchased by the householder with intent to use in his or her dwelling, or

b. arranged and paid for by another party.

2. Hazardous Wastes. Any waste or combinations of a solid, liquid, contained gaseous, or semisolid form which because of its quantity, concentration, or physical, chemical, or infectious characteristics is defined by S.C. Code Ann., Section 44-56-20(6) (1976) or 25 S.C. Regs. 61-79.261.3 as hazardous waste. Carriers of hazardous waste need only file maximum rates with the commission.

## **SUBARTICLE 9 AGREEMENTS, LEASES AND CONTRACTS FOR EQUIPMENT BY HOLDERS OF CERTIFICATES OF PC&N**

### 103-220. Use of Leased Vehicles.

1. Agreement Must Meet Certain Conditions. Carriers may perform authorized transportation in or with motor vehicle power units which they do not own only under contract, lease, or other approved arrangement. Such contract, lease, or other approved arrangement must meet the following conditions:

a. Shall be made between the carrier and the owner of the power unit, provided however, that the same power unit must not be leased to more than one carrier at the same time;

b. Shall be in writing and signed by the parties thereto or their regular employees or agents duly authorized to act for them in the execution of contracts, leases or other arrangements;

c. Shall specify the period for which it applies which shall be not less than 30 days;



d. Shall provide for the exclusive possession, control, and use of the power unit and for the complete assumption of public responsibility (i.e. insurance) in respect thereto by the lessee for the duration of said contract, lease, or other arrangement;

e. Shall specify the compensation to be paid by the lessee for the use of the power unit;

f. Shall specify the time and date or the circumstances on which the contract, lease, or other arrangement begins, and the time or the circumstances on which it ends;

g. Shall specify the power unit or units covered by the lease by designating the serial number, make, and year of model;

h. Shall be executed in quadruplicate; the original shall be retained by the certificated carrier in whose service the power unit is to be operated, one copy may be retained by the owner of the power unit, one copy shall be carried on the power unit specified therein during the entire period of the contract, lease, or other arrangement, and one copy shall be filed with this Commission and provided to the ORS. If the lease, contract, or other arrangement pertains to more than one power unit, copies of such agreement may be maintained in the additional power units.

2. The commission and the ORS Must Be Notified When Agreement Ceases. The lessee shall notify the commission and ORS in writing within 48 hours when any lease is canceled, expired, or otherwise terminated.

3. Lessor Must Charge Rates and Use Bills of Lading of Lessee. In addition to meeting the criteria listed in 1. above, the lessor must charge the rate for transportation of household goods approved by the commission for the lessee. The lessor must also use the lessee's bills of lading. Total responsibility for the operation of the leased unit resides with the lessee.

4. Lease Is for Equipment Only. The provisions of Regulation 103-220 are for the lease of equipment only and shall not be construed as allowing a lease of authority from a certificated motor carrier.

103-221. Exemptions.

The provisions set forth in R.103-220 shall not apply to:

1. Agreements Between Carriers. Motor vehicle power units leased by one carrier to another carrier, provided however, that the lessee must maintain a legible, written copy of the agreement on the vehicle for the duration of the agreement. This exemption does not apply to carriers holding certificates of fit, willing and able.

2. Agreements Between Carrier and Leasing Agency. Motor vehicle power units without drivers leased by a carrier from an individual, copartnership, or corporation, whose principal business is the leasing of equipment without drivers for compensation, provided however, that it will be necessary for the lessee to purchase the appropriate rental license decal from the ORS which shall be carried in the power unit prior to any operations being conducted using such vehicle. This rental license decal may be transferred to another power unit obtained under this provision, but it cannot be transferred to any other equipment whether owned or leased. It is further provided that a legible, written copy of the agreement must be maintained in the vehicle for the duration of the agreement.

103-222. Lessee Responsible.

103-223. Safety Inspection of Leased Equipment.

## **474 FINAL REGULATIONS**

103-224. Identification of Equipment.

103-225. Records Must be Maintained for Three Years.

Any motor carrier who operates leased vehicles in intrastate commerce pursuant to authority granted by this commission shall keep on file a copy of all leases and shall maintain other records required by this article at its principal place of business within this State for a period of not less than three (3) years.

### **SUBARTICLE 10 ANNUAL REPORTS AND ACCOUNTING METHODS AND PROCEDURES**

103-230. Accounting.

103-231. Annual Reports.

Every motor carrier operating under a Certificate of PC&N and FWA shall file with the commission and ORS on or before March 31 of each year, on forms prescribed and furnished by the commission, an annual report for the preceding calendar year ending on June 30<sup>th</sup>. This annual report shall represent the same calendar year upon which the books are kept and shall present a full, true, and accurate account of the business affairs of the carrier.

103-232. Equipment Record.

Every motor carrier operating under a Certificate of PC&N and FWA shall keep on file in its main office, subject to inspection by the commission, a complete description of each motor vehicle and trailer used during the accounting year, including motor vehicles substituted, rented, leased, or otherwise obtained.

103-233. Inspection of Vehicles, Books, Records, etc.

1. Carrier to Cooperate with Inspections. Auditors, accountants, inspectors, examiners, and other agents of the ORS, upon demand and display of proper credentials, shall be permitted by any carrier operating under a Certificate of PC&N and FWA to examine and copy the books, records accounts, bills of lading, load sheets, manifest, correspondence, and other records of such carrier relating to the transportation of property or passengers and to examine the vehicles, terminals, buildings, and other equipment and facilities used by such carrier in such transportation business, and carriers operating under a Charter Bus Certificate shall permit any designated agent of the ORS to inspect records related to insurance coverages and/or safety, and all such carriers shall instruct their drivers, agents, and employees in charge of such records, equipment, and facilities to cooperate with such examination.

2. Information Not Be Divulged. No inspector or other agent of the ORS shall knowingly and willfully divulge any fact or information which may come to his knowledge during the course of any such examination for inspection, except to the commission or the ORS or as may be directed by the commission and ORS or by a court or judge thereof.

3. Refusal to Allow Inspection Is Violation. Refusal of any carrier or employee of any carrier or independent contractor operating a motor vehicle pursuant to the carriers certificated authority issued by the commission to provide information under this article upon demand is a violation of these rules and the Motor Vehicle Carrier Law and is punishable as provided by S.C. Code Section 58-23-80.

**SUBARTICLE 11  
PENALTIES**

## 103-240. Grounds for Revocation of Certificate.

The commission may at any time, after notice and opportunity to be heard, suspend, revoke, alter, or amend any certificate, if it shall be made to appear that the holder has willfully violated or refused to observe orders, rules, or regulations prescribed by the commission, provisions of the Motor Vehicle Carrier Law, or any other law of this State regulating motor carriers for hire and applicable to the holder of such certificate, or, if, in the opinion of the commission, the motor carrier holding a Certificate of PC&N is not furnishing adequate service or it is no longer compatible with the public interest to continue said certificate in force, or, if in the opinion of the commission, the motor carrier holding a Certificate of FWA is no longer furnishing adequate service, or said carrier no longer meets the fit, willing, and able criteria, or the motor carrier holding a charter bus certificate no longer meets the commission's insurance requirements or the safety requirements of the Department of Public Safety, or the continuance of said certificates are not in conformity with the spirit and purpose of the law, provided, however, that this rule shall have no effect upon rules hereinbefore set forth which authorize suspension, revocation, alteration, or amendment of a certificate or of an order granting operating rights without hearing where certain conditions exist.

## 103-241. Inspectors.

The ORS, through inspectors duly appointed, will investigate and report violations of the provisions of the Motor Vehicle Carrier Law and the commission's Rules and Regulations, and for the purpose of enforcing these laws, rules, and regulations, these inspectors shall have and may exercise throughout the State all of the powers of constables.

103-280 is deleted.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

**Statement of Rationale:**

The purpose of the revisions to Regs. 103-100 et. seq. and Regs. 103-200 et. seq. is to conform the Public Service Commission's motor carrier regulations with Act No. 175 of 2004. There was no scientific or technical basis relied upon in the development of these regulations.