



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

May 25, 2016

BURTON M HATFIELD
EQC REGION 4 SUMTER
PO BOX 1628
SUMTER, SOUTH CAROLINA 29151-1628

Re: Laboratory I. D. # 43569
Certificate # 43569001

Dear Mr. Hatfield:

The report of the on-site laboratory evaluation performed on May 24, 2016 by the South Carolina Department of Health and Environmental Control is enclosed.

The report format provides a brief overview of the equipment and practices in place at the laboratory and lists the findings noted. If a response is required, please follow the report format by using the corresponding heading and finding number(s). Mail your response to the Office of Environmental Laboratory Certification at 2600 Bull Street, Columbia, SC 29201.

Your cooperation was greatly appreciated. Please contact me at 803-896-0976, if you have any questions concerning this report.

Sincerely,


James C Berry
Office of Environmental Laboratory Certification
Bureau of Environmental Health Services

cc: Carol F. Smith, Director
Office of Environmental Laboratory Certification

Register on our website at www.scdhec.gov/labcert to receive e-mail updates for the Laboratory Certification Program. Subscribing is easy and you'll automatically receive new posts to our website.

Introduction

On May 24, 2016 in accordance with State Regulation 61-81, James C Berry, Laboratory Certification Officer with the South Carolina Department of Health and Environmental Control conducted an on-site laboratory evaluation of EQC Region 4 Sumter. Burton M Hatfield, Harry Gaymon, and Hugh McFaddin were available for the on-site evaluation.

The on-site evaluation includes a review of the record keeping practices, methodology, equipment, and quality control procedures. The evaluation was based on the applicable methodology as published in the Federal Register 40 CFR Parts 122, 136, 503, et. al.; 40 CFR Parts 141,143 and the EPA's "Manual for the Certification of Laboratories Analyzing Drinking Water"; 40 CFR Part 260; and SW-846. Other regulations, as applicable, are also used to evaluate the laboratory practices. The sample preservation, types of containers, and maximum holding times specified in these regulations are considered minimum requirements of the program.

State Regulation 61-81 requires the formal certification of all laboratories reporting data to the Department. Certification is issued on an analyte-by-analyte basis. Certification is maintained by undergoing an on-site evaluation at least once every three years. Appropriate records must be retained to demonstrate that analytical proficiency and the required standard of quality are maintained throughout the certification period. Laboratory participation in annual Proficiency Testing (PT) studies is required for all applicable parameters for which it is certified.

Laboratories that are not issued certification for specific parameters will be required to contract those analyses to an approved laboratory with the required parameter certification. Environmental monitoring data submitted to the Department is subject to review to ensure the reporting laboratory has the necessary certification. Data reported by laboratories without proper certification will be handled by the enforcement programs.

This report reflects the conditions which existed at the laboratory at the time of the evaluation. The findings and recommendations discussed on the day of the evaluation are listed below. The findings included in this report were those observed during this on-site evaluation. Others may exist and their omission from this report does not constitute endorsement by this Office. The laboratory is encouraged to correct any existing deficiencies even if they are not included in this report. Please address each request for documentation.

Personnel and Training Records

A current personnel list with responsibilities must be maintained and available upon request. A signature page should also be available for each person performing analyses with their printed name, signature, and initials used in the analysis records.

Training records must be maintained for all personnel. These records should include all job-related formal education and training taken by the analyst that pertains to any aspect to his/her responsibilities, including but not limited to analytical methodology, SOP review, laboratory safety, sampling, quality assurance, and data analysis.

Current Personnel

The laboratory certification officer was provided a current personnel listing for all analysts performing analyses in the field or laboratory. See attached personnel listing.

Proficiency Testing (PT) Studies

The laboratory is reminded that Water Pollution (WP) and/or Water Supply (WS) Studies must be performed each year in order to maintain certification for the time period specified on the certification certificate. It is important that the laboratory participate in these studies as early as possible to avoid potential loss of certification. The studies must be part of an official WP and/or WS study, begin and end within the calendar year, and be graded and reported by the PT Provider to this Office no later than December 31 of each calendar year. Results received after December 31 cannot be used for compliance with the PT requirement. Split studies may be used for recertifying a laboratory but may not be used to meet the annual PT requirement. Split studies are those studies that open in one year and are graded and reported the following year or open in one year and close in another year. If the laboratory has questions regarding the submission of PT data, the acceptability of specific studies, or has questions about the annual requirement, please contact this Office.

Please also note that if you fax, e-mail, or enter your results on-line, we strongly recommend that you also mail them via postal mail or contact the Provider to ensure that the e-mail, internet data entry, or fax was received in its entirety. There have been instances where the PT Provider did not receive the results and the laboratory was decertified.

Refer to our website at www.scdhec.gov/labcert for the required PTs and additional information.

Proficiency Testing Studies Reviewed

Proficiency testing (PT) sample results analyzed in the past year and applicable calibration and analysis records were available for review: WP-243 and WS-225 from ERA.

Sample Collection, Handling, and Preservation

Chain-of-Custody

Chain-of-custody forms (completed) for all types of samples collected for regulatory compliance determinations were available for review at the time of the evaluation. The forms documented the required information.

Field Analyses

The following analyses are being performed in the field at the time of sample collection: DO, pH, Temperature and Residual Chlorine.

Contract Laboratories

The chain-of-custody records for the contract laboratories being used for regulatory analyses documented the required information and the Certificates of Analysis were available for review. At the time of the evaluation the following contract laboratories were being used for the documented parameters.

Lab Id	Lab Name	Parameters
21204001	EQC REGION 4 FLORENCE	BOD, CBOD, TSS, Turbidity, Phenols, Total and Fecal Coliforms, and E.coli
	ARESD	All other requested analyses. (ARESD)
93013001	ENVIRONMENTAL ENGINEERING & TECHNOLOGY INC	HAAs and THMs

Quality Assurance Plan

A Quality Assurance Plan with the date of last revision was available and provided to the laboratory certification officer at the time of the evaluation. Periodically this document must be updated to reflect any changes in the laboratory operations.

Laboratory Ethics and Fraud Detection/Deterrence

Laboratories are encouraged to have an ethics policy and implement a fraud detection and deterrence policy/program. A laboratory's ethics program would include a policy statement, training, and signed code of conduct. Laboratories are encouraged to have a Laboratory Ethics SOP which documents where employees can report suspected fraud.

Standard Operating Procedures (SOP) Manual

A Standard Operating Procedure (SOP) must be available for each certified method. Copies of the SOPs with current revision dates were provided to the evaluator at the time of the evaluation. The SOPs should periodically be updated to reflect changes in the procedure, equipment, and reagents. Each time the SOP is updated, the revision date must be updated and a copy with the changes identified submitted to our office for review.

The SOPs provided to the evaluator at the time of the evaluation are complete and up-to-date.

CLEAN WATER ACT

DISSOLVED OXYGEN - SM 4500-O G-2011

Laboratory instrumentation and/or equipment: 2 – YSI model 55 & 1 – YSI 550A DO meters

No Finding.

HYDROGEN-ION CONC. (PH) - SM 4500-H B-2011

Laboratory instrumentation and/or equipment: 2 – Thermo Orion model 3Star pH meters

No Finding.

TEMPERATURE - SM 2550 B-2010

Laboratory instrumentation and/or equipment: NIST-traceable thermometer -1 - 51°C with 0.1°C graduations

Finding: The annual temperature calibration verification had not been performed on one of the pH meters (SN# ending 0538), due to waiting on the receipt of a replacement pH probe.

Requirement: The annual temperature calibration verification must be performed annually on all meters. The laboratory has since received the new probe and this verification must be completed. **Submit a copy of the annual temperature calibration verification for the above mentioned pH meter.**

RESIDUAL CHLORINE - SM 4500-CL G-2011

Laboratory instrumentation and/or equipment: 3 – HACH Pocket II Colorimeters

No Finding.

SAFE DRINKING WATER ACT

HYDROGEN-ION CONC. (PH) - SM 4500-H B-2011

Laboratory instrumentation and/or equipment: 2 – Thermo Orion model 3Star pH meters

No Finding.

RESIDUAL CHLORINE - SM 4500-CL G-2011

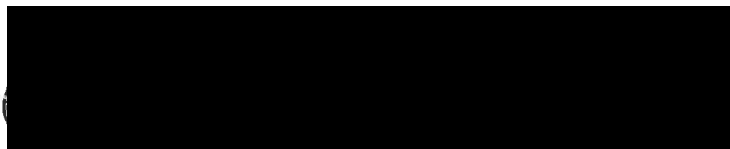
Laboratory instrumentation and/or equipment: 3 – HACH Pocket II Colorimeters

Finding: A sample duplicate is not being performed each day samples are analyzed.

Requirement: A sample duplicate must be analyzed each day samples are analyzed. Submit drinking water residual chlorine analysis records showing this finding has been corrected.

Conclusion

The laboratory will have a thirty-day period upon receipt of this report to address the recommendations, adjustments, and requests for documentation listed in the report. The laboratory response should be received by June 30, 2016.



James C Berry
Laboratory Certification Officer
Bureau of Environmental Health Services



