



W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

CERTIFIED MAIL--RETURN RECEIPT REQUESTED

91 7199 9991 7035 0547 3910

June 11, 2015

Bob Gilroy
Carolina Water Service Inc
150 Foster Brothers Dr
West Columbia, SC 29172

Re: NPDES Permit # SC0035564
CWS/I-20 Regional
Lexington County

Reg: CEI (Compliance Evaluation Inspection)
February 24, 2015

Dear Mr. Gilroy:

Attached are the results of the **Compliance Evaluation Inspection** of your wastewater treatment facility performed by DHEC on February 24, 2015. A review of this report indicates that deficiencies of the NPDES permit requirements were noted in the **Records and Reports** section(s), which resulted in an overall **non-compliance** rating.

Please note; failure to comply with the NPDES permit conditions places you in violation of Sections 48-1-90 and 48-1-110 of the Code of Laws of South Carolina. Please respond in writing to this office within **fifteen (15) days** addressing the deficiency. Failure to respond or an inadequate response will provide a basis for enforcement action.

If you have any questions regarding this inspection, please contact me at 803-898-4273 or email to baxleyla@dhec.sc.gov.

Sincerely,

Lori A Baxley
Compliance Manager
Water Pollution Compliance Section
Bureau of Water

Attachment

ec: Regional EQC, Enforcement
cc: File



**South Carolina Department of Health and Environmental Control
Compliance Inspection Report
Permit # SC0035564**

Inspection Type: CEI

Date of Inspection: 02/24/2015

Entry Time: 1345

Exit Time: 1445

Permit Effective Date: 1/1/1995

Permit Expiration Date: 9/30/1999

Name and Location of Facility, (include county):

CWS/I-20 REGIONAL
W COLUMBIA, SC, 29169
LEXINGTON COUNTY

Name, Telephone No. of On-Site Representative(s):

JOSHUA WESSINGER; 803-309-0338

Name and Address of Responsible Official/Telephone No.:

GILROY, BOB
CAROLINA WATER SERVICE INC
150 FOSTER BROTHERS DR
WEST COLUMBIA, SC, 29172
800-272-1919

Areas Evaluated During Inspection

Permit

Flow Measurement

Operation and Maintenance

Records/Reports

Self-Monitoring

Sludge Handling/Disposal

Facility Site Review

Compliance Schedules

Effluent/Receiving Waters

Laboratory

Collection System

Other:

Name of Inspector: Matthew W Miller

Region/District: 03 COLUMBIA EQC

Name of Region Reviewer: Brad Martin

Date: 3/27/15

Name of WPC Reviewer: Lori Baxley

Date: 6/11/15

**Compliance Evaluation Inspection
CWS/I-20 REGIONAL
W COLUMBIA, SC
PERMIT SC0035564**

Introduction

On February 24, 2015 personnel from the South Carolina Department of Health and Environmental Control (SCDHEC) conducted a Compliance Evaluation Inspection (CEI) of the CWS/I-20 Regional Wastewater Treatment Plant (WWTP) located in West Columbia, South Carolina. The SCDHEC inspector, Mr. Matt Miller, met with the facility representative, Mr. Joshua Wessinger of Carolina Water Services, to explain the objectives and procedures of this inspection. All findings made during the inspection were discussed with the representatives in a closing conference. The results of the inspection are as follows:

Permit

This facility is permitted to discharge under NPDES Permit No. SC0035564. The facility's latest permit became effective on October 1, 2004, and expired on November 30, 2006; however, an Administration order allows the facility to operate under a permit that became effective January 1, 1995, and expired on September 30, 1999. Permit information regarding the number and location of discharge point(s), as well as the name and location of the receiving waters is correct. All discharges at this facility are permitted.

Rating: Satisfactory

Compliance Schedule, Administrative Order, Consent Order

The Permittee is currently meeting the requirements of the Administrative order.

Rating: Satisfactory

Records and Reports

The facility's record-keeping and report preparation procedures appear to be accurate and complete. The December 2014 Discharge Monitoring Report (DMR) was requested and reviewed during this inspection. Analytical values reported on the DMR appeared to be consistent with analytical data reviewed. The chains of custody appeared to be complete and accurate. The facility is reporting the values for pH and Dissolved Oxygen incorrectly. Both of these parameters are required to be monitored daily; however, the facility is only reporting from values collected on days that the facility also collects composite samples rather than reporting from all the daily samples collected throughout the month.

A sampler setup document is being utilized by the operator at this facility to document the composite sampler setup.

An Operation and Maintenance (O&M) manual was not present at the WWTP during this inspection. During prior Department inspections it has been noted that an O&M manual was not available onsite.

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The Groundwater Monitoring Reports were reviewed during this inspection. A copy of the 2014 4th Quarter report for both the Woodsen and Spring Hills lagoons was provided to the Department.

Meter calibration records for December 2014 were reviewed. Based on calibration records, the facility has several different meters available for use. Not all of the meters are being calibrated daily. It is recommended that the facility document which meter was used on the daily log in order to verify calibration requirements.

Rating: Unsatisfactory

Requirement:

Part II.C.1.d The permittee shall maintain at the permitted facility a complete Operations and Maintenance Manual for the waste treatment plant.

Part I.E.6 For compliance reporting purposes, parameter values recorded on the DMR must be reported from the full range of data collected throughout the month.

Recommended:

It is recommended that the facility document which meter was used on the daily log in order to verify calibration requirements.

Flow Measurement

Flow is measured using a 5' rectangular weir with end contractions. This facility is designed for 0.80 MGD. The daily average flow reported on the reviewed DMR was 0.5403 MGD. The effluent weir appears to be properly installed and maintained. A 4230 ISCO Flow Totalizer and Chart recorder measures the flow continuously and flows are recorded daily as required by the permit. The flow meter is compared to a staff gauge on a daily basis to ensure the flow meter is recording accurately. An annual calibration of the secondary devices through the range of expected flows is conducted once a year by a qualified instrument technician. The flow meter was last calibrated on June 13, 2014.

Rating: Satisfactory

Self-Monitoring Program

The facility's self-monitoring program appeared to be in compliance with permit requirements. The facility is collecting samples for the required parameters at the required frequency. Samples are being collected on the correct day as specified in the permit. The sampler was not in operation during this inspection; however, it is programmed to obtain a 100ml aliquot for every 12,000 gallons of flow. CWS personnel collect effluent grab samples and analyze for the required field parameters. CWS personnel also program the composite sampler and collect the required composite samples.

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All samples requiring laboratory analysis are relinquished to a certified laboratory.

Rating: Satisfactory

Facility Site Review, CSO/SSO

This facility is a 0.80 MGD Regional Sewer System. The treatment system consists of two (2) separate aerated equalization ponds, (Spring Hill Subdivision and Woodsen Subdivision) which feed into the Laurel Meadows lagoon. The Laurel Meadows wastewater facility has a large lagoon that contains nineteen (19) aerators, an effluent pump station with two (2) pumps, and liquid Sodium Hypochlorite and Sodium Bisulfite systems for disinfection and then dechlorination.

The discharge point is not located at the facility. Treated wastewater is pumped from the Laurel Meadows lagoon to the discharge point. The discharge point consists of a five-foot (5') rectangular weir with end contractions. Prior to the wastewater being discharged Sodium Bisulfite is injected for dechlorination. The dechlorinated effluent then flows by gravity to the Saluda River.

The equalization ponds were originally individual wastewater treatment plants that were converted to equalization ponds and tied onto the CWS / I-20 Regional Sewer System (Laurel Meadows Wastewater plant). The Spring Hill EQ pond consists of one pond with two (2) operating aerators. The system also has an under ground (confined space) effluent pump station and two (2) ground water monitoring wells. Due to recent odor complaints the Utility has placed odor control blocks and odor socks around the facility. The permittee is introducing sludge reduction bacteria to the lagoon in an attempt to lower the sludge levels and reduce odors. The Woodsen Subdivision EQ pond consists of an aerated lagoon with two (2) aerators, an effluent pump station with two pumps and two (2) ground water monitoring wells.

An Emergency Treatment Control plan has been established for the collection system and pump stations. Maps and schematics of the wastewater collection system are being maintained at the main CWS office. Sanitary sewer overflow reports are also being maintained at the main office. Inspections of the collection system pump stations and EQ lagoons are being documented several times per week and some are being inspected daily.

Rating: Satisfactory

Operations and Maintenance

At the time of the site evaluation, all treatment units were in service except for three aerators at the Laurel Meadows lagoon system. A contractor was onsite during the inspection to service the aerators. An ultrasonic algae treatment system has been installed in the lagoon to assist with Biochemical Oxygen Demand (BOD) problems that the plant experiences during certain times of the year. Algacide is also added to the lagoon as needed. The facility is being inspected daily. Daily inspections are documented.

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The Springhill and Woodsen lagoons are both being inspected on a routine basis. The equipment at each was operational during the site evaluation. Power to the facility is provided by both SCE&G and Mid-Carolina Electric Co-op.

Rating: Satisfactory

Sludge Handling/Disposal

The facility consists of lagoons and does not require frequent sludge disposal; however, should sludge disposal be required at a later date, an approval to properly dispose of sludge must be obtained from this agency prior to sludge removal.

Rating: Satisfactory

Laboratory

Carolina Water Services owns and operates the facility and performs sample analysis for field parameters. The CWS laboratory is certified by SCDHEC (Lab ID# 32015) to analyze samples for pH, Dissolved Oxygen, Total Residual Chlorine (TRC), Flow, and Temperature. CWS personnel record the pH in situ so no duplicate pH measurements are required. Duplicate TRC measurements are recorded weekly. All calibration documentation was reviewed during this inspection (as noted in the Self-Monitoring section).

On Line Environmental, Inc. is certified by SCDHEC (Lab ID#32571) and contracted with Carolina Water Services to analyze samples for Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Ammonia, Metals, and Fecal Coliform. Laboratory documentation indicates that samples are being collected, analyzed, and reported according to approved methods and at the required frequencies. On Line Environmental utilizes outside laboratories for BOD and metals analysis. Davis & Brown (SCDHEC Lab ID#21117) analyzes the BOD samples. Access Analytical, Inc. (SCDHEC Lab ID#98016) analyzes the metal samples (Cd, Cu, Pb, & Zn) once per quarter.

Rating: Satisfactory

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Photos taken during the inspection.



Photo 1: Laurel Meadows lagoon with aerators



Photo 2: Discharge over 5-foot rectangular weir
