



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
CHATTANOOGA ENVIRONMENTAL FIELD OFFICE
540 McCALLIE AVENUE, SUITE 550
CHATTANOOGA, TENNESSEE 37402
PHONE (423) 634-5745 STATEWIDE 1-888-891-8332 FAX (423) 634-6389

RC
AMY ✓
WMK ✓
TLA 12/24/09
SAH 1-11-10
WEC 1-10-15
file: Chatt. STP
2009
(Hamilton)

December 10, 2009

Certified Mail
7009 0080 0000 3793 2622

The Honorable Ron Littlefield, Mayor
City of Chattanooga
Suite 100, City Hall
Chattanooga, Tennessee 37402

Re: **Notice of Violation**
Chattanooga-Moccasin Bend WWTP
Compliance Evaluation Inspection
NPDES Permit Number TN0024210
Hamilton County

Dear Mayor Littlefield:

On, November 3, 2009 Ms. Angela Young, Ms. Leetha Abazid, and Mr. Ed Casavant of my staff and inspectors from EPA Region IV performed an unannounced Compliance Evaluation Inspection of the City of Chattanooga's Moccasin Bend wastewater treatment plant. The purpose of the inspection was to determine the facility's compliance with the terms and conditions of NPDES Permit Number TN0024210. Information was provided during the inspection by Alice Canella, Plant Superintendent and Mr. Paul Patterson, Laboratory Supervisor. Please note that a copy of this report has been forwarded to EPA Region 4 in Atlanta.

Permit rating: satisfactory.

NPDES Permit Number TN0024210 became effective on April 1, 2007. It expires on December 30, 2009. The permit is in the process of being reissued. Until a new permit is issued, the terms and conditions of the expired permit will remain in effect. The correct receiving waters are listed (Tennessee River at Mile 447.8) and the effluent limitations are protective of its classified uses.

Records and Reports rating: marginal.

Record keeping has greatly improved since our last inspection. Mr. Patterson has the data reviewed several times to insure proper transfer of data to the Monthly Operation Reports and Discharge Monitoring Reports.

Records reviewed for September 2009, March 2008 and July 2007 revealed the following transcription errors:

- March 4, 2008 Primary influent CBOD Bench sheet 91.0 mg/l
DMR 120.3 mg/l

On March 27, 2009 CBOD worksheet noted the seed bottle was broken. On March 31, 2008 The Chain of Custody did not have a Laboratory Information Management System (LIMS) number for the samples collected. This error breaks the custody chain as the sample is known by this number once it is received by the sample custodian.

Facility Site Review rating: satisfactory.

Plant operations are monitored constantly from the control room. Buildings and grounds were in satisfactory condition. To maintain plant equilibrium some of the clarifiers were not being used at the time of inspection.

Effluent / Receiving Waters rating: unsatisfactory

The effluent was colored light brown with visible foam. Review of the self-monitoring data for the period of October 2008 through October 2009 revealed the following violations of the effluent limitations contained in Part 1.1-1.4. of NPDES Permit Number TN0024210:

- 1/31/08 Solids, suspended percent removal
- 8/31/08 Solids, total suspended 00530 1 001
- 11/30/08 BOD, carbonaceous, 05 day, 20 C
- 1/31/09 BOD, carbonaceous, 05 day, 20 C
- 2/28/09 BOD, carbonaceous, 05 day, 20 C
- 3/31/09 Solids, settleable
- 3/31/09 Solids, total suspended
- 9/21/09-9/24/09 E. coli Daily Maximum
- 9/27/09-9/29/09 E. coli Daily Maximum
- 9/30/09 Carbonaceous oxygen demand, % removal
- 10/14/09 Chlorine, Total Residual Instantaneous Daily Maximum

Flow Measurement rating: satisfactory.

The influent to the plant is measured using a Fischer – Porter magmeter. The secondary effluent flow is measured using a Fischer-Porter magmeter on the discharge from the equalization basins to the secondary treatment system. The combined wet weather and secondary flow can be measured using an Acusonics combination transit time/doppler system. The data is recorded on totalizers in the computer operations control room. Flowmeter calibration is performed on an as needed basis or at a minimum frequency of once per year.

Self-monitoring Program rating: unsatisfactory.

The automatic samplers were working properly during the inspection. All samplers were refrigerated to 4 ± 2 °C during the inspection. The plant collects samples at the frequency

specified in the permit. During September 27-28, 2009 the Automatic sampler for plant influent did not collect representative samples. All influent data should have been flagged in the LIMS systems.

According to Mr. Patterson the Laboratory Manager, duplicate samples are collected for *E.coli* and Fecal coliform. After samples are collected, one sample is run within the 6 hour holding time and the duplicate is refrigerated until the first sample results are read after 24 hours of incubation. According to Mr. Patterson, if the first sample exceeds the daily maximum, the second sample is pulled from the cooler and analyzed even though the sample exceeds the maximum 6 hour holding time. This data is not representative of what might have caused the first sample to fail effluent limits. As stated in your NPDES permit all samples collected and analyzed must be reported. Based upon responses provided to the inspectors, these second samples when analyzed are not reported. **This is a violation of NPDES No TN0024210 Part 1.1.7.**

Compliance Schedule rating: satisfactory.

Chattanooga-Moccasin Bend WWTP has met the compliance schedule items contained in the permit.

Laboratory rating: unsatisfactory.

A Quality Assurance/Quality Control program is in place. Laboratory equipment was found to be in good condition. The data is transferred from the bench sheets onto a summary sheet and entered into a LIMS that tracks the time, date, method, analyst and result for all samples and is used to generate the Monthly Operation and Discharge Monitoring Reports. Three staff members check the data entered into the LIMS to assure data is correct before generation of a DMR. The LIMS also automatically flags a sample if it does not meet permit limits or QC requirements.

Although analysts appear to be skilled at performing the analyses, several bench sheets had correction tape being used to make corrections. To provide legally defensible data, the use of correction tape and pencils are forbidden. Mr. Patterson issued a memo to lab personnel to immediately cease this type of correction.

Additionally, the method used for CBOD/BOD is not an approved method. Improper bench procedures and using methods not approved by 40 CFR 136 results in an unsatisfactory rating. **Using unapproved methods is a violation of NPDES No TN0024210 Part 1.1.3.**

Operation and Maintenance rating: marginal.

A preventive and predictive maintenance program is followed at the plant. Emergency repairs are conducted as needed by either plant personnel or outside contractors. The current staffing organization at the plant is sufficient for treatment plant operations.

Operators and other plant personnel are diligent in performing the necessary tasks to keep the plant running smoothly. They also handle emergency situations adequately. For Example on Friday October 2, 2009 while an operator was changing chlorine gas cylinders, the yolk on a

cylinder blew out, resulting in a significant leak of chlorine gas. Emergency response teams were called out immediately. Secondly, the Chattanooga Field Office was notified that the Chlorine disinfection line was shut off temporarily while the emergency was dealt with. The operator suffered only minor injuries due to the quick emergency response and proper Personal Protective Equipment.

Although the plant is run satisfactorily, the inadequate laboratory procedures results are a marginal rating. Inadequate laboratory practices and quality assurance **are violations of NPDES No TN0024210 Part 2.1.4.**

Please note that the Collection System Operation is not evaluated in this report. This evaluation is being developed by USEPA Region IV inspectors.

Sludge Handling rating: **satisfactory**

The Filter Press Building contains 6 U.S. Filter/Siemens JVAP Model 2000-V30 heated-diaphragm/vacuum-drying filter presses. Each press has a rated capacity of 8.6 dry tons per day and produces a 70% solids cake with a Class A biosolids rating according to the 503 Regulations. The City of Chattanooga has not yet classified their biosolids as Class A.

In January 2009 Chattanooga received a third party verification audit of its biosolids management program. The program was found to comply with the National Biosolids Partnership (NBP) requirements.

As part of NBP requirements, Moccasin Bend has implemented a centralized electronic data management system (from Material Matters, Inc.) for biosolids data that receives and combines input from various sources such as laboratory analyses, production records, land application site information, truck scale data, and farm and field application rates entered by the City's land application contractor. Additionally, inspection reports and complaints received are tracked in this system.

Pretreatment Program was **not evaluated** during this inspection.

Storm Water rating: **not evaluated**

Sewer Overflows rating: **to be provided by USEPA Region IV**

The Collection System inspection was conducted by Mary Milner EPA Region IV and will be evaluated in a separate report.

Pollution Prevention and **Multimedia** were **not evaluated** during this inspection.

The Honorable Ron Littlefield, Mayor

December 10, 2009

Page 5


Statement of Violations

- By discharging effluent that violated provisions of Part I. A. of the permit, the City of Chattanooga has violated **Part 1.1 of NPDES Permit Number TN0024210**
- By using analytical Methods not approved in 40 CFR Part 136 the City of Chattanooga has violated **NPDES No TN0024210 Part 1.1.3.**
- By collecting additional samples and data and not reporting the results the City has violated **NPDES No TN0024210 Part 1.1.7.**
- By having inadequate laboratory practices and quality assurance the City has violated **NPDES No TN0024210 Part 2.1.4.**
- By violating provisions of NPDES Permit Number **TN0024210** the City of Chattanooga has also violated **Tennessee Code Annotated Section 69-3-114.**

It is requested that a written response to this report be submitted by **January 9, 2009** the response should detail what corrective actions have been implemented regarding the above noted deficiencies.

The Division would like to thank all personnel at the Moccasin Bend facility for their time and assistance during our inspection. If you have any questions concerning either the inspection or this report, please contact Angela Young at 423-634-5708.

Respectfully,



Richard D. Urban, Ph. D.
Environmental Field Office Manager
Division of Water Pollution Control

Chattanooga 2009 CEI Report

- cc: Mr. Steve Leach, Administrator, Department of Public Works, Suite 200, City Hall,
Chattanooga, TN 37402
- cc: Mr. Jerry Stewart, P. E., Director, Waste Resources Division, 455 Moccasin Bend Road,
Chattanooga, TN 37405
- cc: Ms. Alice Canella, P. E., Plant Supervisor, 455 Moccasin Bend Road, Chattanooga, TN
37405
- cc: Ms. Mary Milner, Environmental Protection Agency, Water Enforcement Section,
Atlanta Federal Center, 61 Forsyth Street, SW, Atlanta, GA 30303
- cc Division of Water Pollution Control, Enforcement and Compliance Section, Nashville



Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction 1	Code 2	NPDES 3	yr / mo / day 12	Inspection Type 17	Inspector 19	Facility Type 20
5	T N 0 0 2 4 2 1 0	0 9 1 1 0 3	C	T	1	
Remarks						
Inspection Work Days 67 4 . 0 69						
Facility Self - Monitoring Rating 70 4						
BI 71 QA 72 Reserved 73 74 75						

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) City of Chattanooga Moccasin Bend WWTP 455 Moccasin Bend Rd. Chattanooga TN	Entry Time / Date 930/11/03/09	Permit Effective Date 04-01-07
	Exit Time / Date 1100/11/09/09	Permit Expiration Date 12-30-09
Name(s) of Onsite Representative(s) / Title(s) / Phone and Fax Number(s) Jerry Stewart, Director 423-757-5026 Alice Cannella, Plant Superintendent Paul Patterson, Lab Manager	Other Facility Data (e.g., SIC NA/ICS, and other descriptive information)	
Name, Address of Responsible Official / Title / Phone and Fax Number Mayor Ron Littlefield, Mayor /423- 757-5152 1101 Lindsay St. FAX 423- 757-0005 Chattanooga TN 373402	Contacted <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records / Reports	<input checked="" type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pollution Prevention	<input type="checkbox"/> CAFO
<input checked="" type="checkbox"/> Facility Site Review	<input checked="" type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/ Receiving Waters	<input checked="" type="checkbox"/> Operation & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings / Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
A 0 5 1 2	Numeric Effluent Violations
B 0 5 2 0	Improper Operation and Maintenance

Name (s) and Signature of Inspector Angela M. Young E.S. IV	Agency / Office / Phone and Fax Numbers State Of Tennessee Division of Water Pollution Control Chattanooga Environmental Field Office Phone: (423) 634-5745 Fax: (423) 634-6389	Date 12-10-09
Name (s) and Signature of Inspector Leetha Abazid E.P.S. III	Agency / Office / Phone and Fax Numbers State Of Tennessee Division of Water Pollution Control Chattanooga Environmental Field Office Phone: (423) 634-5745 Fax: (423) 634-6389	Date 12/10/2009
Signature of Management Q A Reviewer Richard D. Urban, PhD.	Agency / Office / Phone and Fax Numbers State Of Tennessee Division of Water Pollution Control Chattanooga Environmental Field Office Phone: (423) 634-5745 Fax: (423) 634-6389	Date 12/10/09