



**Environmental  
Protection Agency**

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

March 29, 2011

**Re:** Athens County  
City of Athens WWTP  
Compliance Evaluation Inspection  
NPDES Permit OPD00000\*GD

Mayor Paul Wehl and City Council  
City of Athens  
8 East Washington Street  
Athens, Ohio 45701

Dear Mayor and Council Members:

On March 18, and 21, 2011, I conducted a Compliance Evaluation Inspection at the City of Athens wastewater treatment plant. Jeff Arnold, Plant Manager, accompanied me on the plant inspection and Joe Canter was present for the laboratory evaluation. The purpose of the inspection was to determine the status of compliance with the terms and conditions of the NPDES permit OPD00000\*GD. The inspection and lab evaluation forms are attached.

The following observations were made during the inspection.

1. **Records/Reports:** All certified operators, including the operator of record must keep a log. There must also be a plant log. See attached copies of Ohio Administrative Code (OAC) 3745-7-09.
2. **Operations/Maintenance:**
  - a. The headworks screening is inadequate as evidenced by rags and plastics throughout the plant. The revised sludge rules, OAC 3745-40, will become effective 7/1/2011, and will contain screening requirements in order to minimize debris in the sludge.
  - b. The plant backup generator is not adequate to provide minimal treatment during a power outage. Backup power is a standard contained in the Ten State Standards for Wastewater and is required in order to meet permit limits consistently.
3. **Collection System:** There is a Sanitary Sewer Overflow (SSO) located adjacent to the Stimson Ave. bridge over the Hocking River. This SSO discharges during dry weather and rainfall events. Ohio EPA has sampled this location and found

the discharge to contain excessive levels of fecal coliform. This SSO must be reported in accordance with the NPDES permit. Please refer to page of the NPDES permit for sampling requirements. SSOs are unauthorized discharges and are a violation of the NPDES permit and Ohio Revised Code 6111.

4. On December 6-7, 2010, the Ohio EPA sampling crew performed a sampling event at the Athens WWTP. A letter containing the results was sent to the Mayor and Council March 2011. The sample results indicated compliance with the NPDES permit effluent limits on the day the samples were taken. Also, at that time, a bioassay was performed. The results of this test indicate that there was no acute toxicity in the effluent from the WWTP on the day of the sampling event.
5. **Laboratory:** On March 21, 2011, I performed a detailed inspection of the wastewater laboratory. Joe Canter, laboratory technician, was present for the inspection. See attached laboratory evaluation form for details of the inspection. In summary, the Athens lab routinely passes the required annual quality control testing performed as required by USEPA and Ohio EPA, however, there are improvements that are needed in the laboratory procedures.
  - a. All of the thermometers must be calibrated annually.
  - b. A review of the chain of custody procedure is needed to ensure all persons involved in the sample handling are recorded.

Please respond, in writing, within 30 days of receipt of this report, to items 1 through 3 and 5 above. If you have any questions, please contact me at (740) 380-5284.

Sincerely,



Ms. Abbot Stevenson  
Environmental Engineer  
Permits and Enforcement Section  
Division of Surface Water

AS/dh

Enclosure

- c: Andy Stone, City Engineer, City of Athens
- c: Jeff Arnold, Operator of Record, Athens WWTP
- c: Joe Canter, Athens Wastewater Laboratory
- c: AS file

# NPDES Compliance Inspection Report

## A. NATIONAL DATA SYSTEM CODING

| Permit No.  | NPDES No. | Date                | Inspection Type | Inspector | Facility Type |
|-------------|-----------|---------------------|-----------------|-----------|---------------|
| OPD00000*HD | OH0023931 | March 18 & 21, 2011 | C               | S         | 1             |

## B. FACILITY DATA

| Name & Location of Facility Inspected  | Entry Time | Permit Effective Date  |
|--|------------|------------------------|
| Athens Wastewater Treatment Plant<br>557 E. State Street<br>Athens, Ohio 45701 | 12:15 p.m. | January 1, 2008        |
|  | Exit Time  | Permit Expiration Date |
|  | 3:00 p.m.  | July 31, 2012          |

| Name(s) & Title(s) of On-Site Representative(s)  | Phone Number(s) |
|--|-----------------|
| Jeff Arnold, Plant Manager   | (740) 593-7636  |
| Name, Address, & Title of Responsible Official   | Phone Number    |
| Mayor Paul Wehl and City Council Members<br>8 East Washington Street<br>Athens, Ohio 45701 | (740) 592-3338  |

## C. AREAS EVALUATED DURING INSPECTION

|                                   |                                    |                                  |
|-----------------------------------|------------------------------------|----------------------------------|
| <u>S</u> Permit                   | <u>S</u> Flow Measurement          | <u>N/A</u> Pretreatment          |
| <u>M</u> Records/Reports          | <u>M</u> Laboratory                | <u>N/A</u> Compliance Schedules  |
| <u>M</u> Operations & Maintenance | <u>S</u> Effluent/Receiving Waters | <u>S</u> Self-Monitoring Program |
| <u>S</u> Facility Site Review     | <u>S</u> Sludge Storage/Disposal   | <u>    </u> Other                |
| <u>M</u> Collection System        |                                    |                                  |

(S = Satisfactory; M = Marginal; U = Unsatisfactory; N = Not Evaluated; N/A = Not Applicable)

## D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)

Records/Reports: All certified operators, including the operator of record must keep a log. There must also be a plant log. See attached copies of OAC 3745-40.  
 Operations/Maintenance: The headworks screening is inadequate as evidenced by rags and plastics throughout the plant. Also, the plant backup generator is not adequate to provide minimal treatment during a power outage.  
 Collection System: There is a Sanitary Sewer Overflow (SSO) located adjacent to the Stimson Avenue bridge over the Hocking River. This SSO discharges during dry weather and rainfall events. This SSO must be reported in accordance with the NPDES permit. Actions must be taken to eliminate this SSO.  
 Laboratory: Thermometers need to be calibrated; and chain of custody procedure needs to be examined.

  
 \_\_\_\_\_  
 Abbot Stevenson, Inspector, Ohio EPA, Southeast District Office

3/29/11  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Timothy M. Campbell, Reviewer, Ohio EPA, Southeast District Office

3/29/11  
 \_\_\_\_\_  
 Date

**E. PERMIT VERIFICATION**

| Inspection Observations Verify the Permit                                     | YES                                 | NO                                  | N/A                                 | N/E                      |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Correct name & mailing address of permittee                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Correct name & location of receiving waters                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| c. Product(s) & production rates conform with permit application (industries) | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| d. Flows & loadings conform with NPDES permit                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| e. Treatment processes are as described in permit application/briefing memo   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| f. New treatment process(es) added since last inspection                      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| g. Notification given to state of new, different, or increased discharges     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h. All discharges are permitted   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| i. Number & location of discharge points are as described in permit           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |

Comments:

**F. COMPLIANCE SCHEDULES/VIOLATIONS**

|   | YES                                 | NO                                  | N/A                                 | N/E                      |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Any significant violations since the last inspection | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Permittee is taking actions to resolve violations    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Permittee has compliance schedule                    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| d. Compliance schedule contained in: _____              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Permittee is meeting compliance schedule             | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Comments:

a. The Stimson Avenue SSO is a significant violation.

**G. OPERATION AND MAINTENANCE**

| Treatment Facility Properly Operated & Maintained   | YES                                 | NO                                  | N/A                                 | N/E                      |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Standby power available: Generator: <input checked="" type="checkbox"/> Dual Feed: <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Adequate alarm system available for power or equipment failures  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| c. All treatment units in service other than backup units   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| d. Sufficient operating staff provided: # of shifts: <u>3</u> Days/Week: <u>7</u>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| e. Operator holds unexpired license of class required by permit. Class: <u>3</u>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| f. Copy of certificate of Operator of Record displayed on-site  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| g. Minimum operator staffing requirements fulfilled (OAC 3745-7)  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h. Routine & preventive maintenance schedule/performed on time  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| i. Any major equipment breakdown since last inspection  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| j. Operation & maintenance manual provided & maintained   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| k. Any plant bypasses since last inspection   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| l. Regulatory agency notified of bypasses: On MORS: <input checked="" type="checkbox"/> 800 No.: <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| m. Any hydraulic and/or organic overloads experienced since last inspection   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Comments:

| Record Keeping  | YES                                 | NO                       | N/A                      | N/E                      |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Log book provided  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Log book kept on-site  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Log book contains the following:   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1. Identification of treatment works  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Date/Time of arrival/departure of ORC  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Daily record of operation and maintenance activities   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Laboratory results (unless documented on bench sheets)   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Identification of person making log entries  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the ORC submitting written notification to Ohio EPA and permittee when a collection system overflow, treatment plant bypass or effluent limit violation has occurred. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Comments:**

a. These records are kept but not in a bound notebook. A copy of OAC 3745-7 will be provided with this report.

| Collection System  | YES                                 | NO                                  | N/A                                 | N/E                      |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Percent combined system. Percent: <u>0</u>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Any collection system overflows since last inspection:<br>CSO: <input type="checkbox"/> SSO: <input checked="" type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| c. Regulatory agency notified of overflow (SSOs)   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| d. CSO O&M plan provided and implemented   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. CSOs monitored and reported in accordance with permit   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. Portable pumps used to relieve system   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| g. Lift station alarm systems provided and maintained  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| h. Are lift stations equipped with permanent standby power or equivalent   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| i. Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| j. Any complaints received since last inspection of basement flooding  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| k. Are any portions of the sewer system at or near capacity  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Comments:**

c. SSO on Stimson Avenue near Hocking River bridge must be monitored and sampled.

**H. SLUDGE MANAGEMENT**

|   | YES                                 | NO                                  | N/A                                 | N/E                      |
|---|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a. Sludge adequately disposed. Method: <u>Land application</u>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. If sludge is incinerated, where is ash disposed of? _____  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Is sludge disposal contracted? Name: <u>Craig Services</u>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| d. Has amount of sludge generated changed significantly since last inspection                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| e. Adequate sludge storage provided at facility   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| f. Land application sites monitored and inspected per state rules   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| g. Records kept in accordance with state rules  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| h. Any complaints received in last year regarding sludge  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| i. Is sludge adequately processed (digestion, dewatering, pathogen control) in accordance with Ohio EPA rules | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |

**Comments:**

I. SELF-MONITORING PROGRAM

| Part 1 – Flow Measurement  | YES                                 | NO                       | N/A                      | N/E                      |
|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Primary flow measuring device properly operated & maintained. Type of device:<br><input type="checkbox"/> Ultrasonic & parshall flume <input type="checkbox"/> Calculated from influent<br><input type="checkbox"/> Weir <input type="checkbox"/> Other<br><input type="checkbox"/> Ultrasonic & weir      specify: _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Calibration frequency adequate. Date of last calibration: 5/14/10   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Secondary instruments (totalizers, recorders, etc.) properly operated and maintained  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Flow measurement equipment adequate to handle expected ranges of flows  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Actual flow discharged is measured  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Flow measuring equipment inspection frequency:<br><input checked="" type="checkbox"/> Daily <input type="checkbox"/> Monthly<br><input type="checkbox"/> Weekly <input type="checkbox"/> Other  |                                     |                          |                          |                          |

Comments:

| Part 2 - Sampling  | YES                                 | NO                                  | N/A                      | N/E                      |
|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| a. Sampling location(s) are as specified by permit   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Parameters and sampling frequency agree with permit   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Permittee uses required sampling method   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Sample collection procedures are adequate   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Samples refrigerated during compositing   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. Proper preservation techniques used  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Conform with 40 CFR 136.3  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Monitoring records (e.g., flow, pH, D.O., etc.) maintained for a minimum of three years including all original strip chart recordings (e.g., continuous monitoring instrumentation, calibration, & maintenance records) | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Adequate records maintained of sampling date, time, exact location, etc.  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Comments:

f. Lab technician will improve amount of information recorded.

| Part 3 – Laboratory, General   | YES                                 | NO                       | N/A                                 | N/E                      |
|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Written Standard Operating Procedures (SOPs) for all analysis performed on-site   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. EPA approved analytical testing procedures used (40 CFR 136.3)  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| c. If alternate analytical procedures are used, proper approval has been obtained  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Analysis being performed more frequently than required by permit  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| e. If (c) is yes, are results reported in permittee's self-monitoring report   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| f. Commercial laboratory used:<br>1. Parameters analyzed by commercial lab: <u>metals, O&amp;G, Phosporus, TKN, N+N</u><br>2. Lab name: <u>Alloway</u> |                                     |                          |                                     |                          |

Comments:

| Part 3 – Laboratory, Quality Control/Quality Assurance   | YES                                 | NO                                  | N/A                      | N/E                      |
|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| a. Quality assurance manual provided and maintained  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Satisfactory calibration and maintenance of instruments and equipment   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Adequate records maintained   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Results of latest U.S. EPA quality assurance performance sampling program:<br>Date: 2010 <input type="checkbox"/> Satisfactory <input checked="" type="checkbox"/> Marginal <input type="checkbox"/> Unsatisfactory |                                     |                                     |                          |                          |

**Comments:**

- b. Instruments are calibrated but not thermometers
- d. Unsatisfactory on Ammonia only

**J. EFFLUENT/RECEIVING WATER OBSERVATIONS**

| Outfall # | Oil Sheen | Grease | Turbidity | Visible Foam | Visible Float Solids | Color | Other |
|-----------|-----------|--------|-----------|--------------|----------------------|-------|-------|
| 001       | None      | None   | None      | Noen         | Some                 | None  |       |

**Comments:**

**K. MULTIMEDIA OBSERVATIONS**

| Collection System   | YES                      | NO                                  | N/A                      | N/E                      |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a. Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Do you notice staining or discoloration of soils, pavement, or floors                                      | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Do you notice distressed (unhealthy, discolored, dead) vegetation  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Do you see unidentified dark smoke or dustclouds coming from sources                                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Do you notice any unusual odors or strong chemical smells  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**If any of the above are observed, ask the following questions:**

1. What is the cause of the conditions?
2. Is the observed condition or source a waste product?
3. Where is the suspected contaminant normally disposed?
4. Is this disposal permitted?
5. How long has the condition existed and when did it begin?

**Comments:**

# General Lab Criteria

Facility: Athens WWTP, OPD00000\*GD

| Criteria                               | Standard Methods Requirement   | Acceptable?   | Rating   |
|--|--|---|----------|
| <b>Balance</b>                         |  |   |          |
| • Standard Weights                     | • Either NIST Class s or ASTM/ANSI Class 1 weights <sup>1,2</sup>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>A</b> |
| • Calibration Frequency/ Documentation | • Calibration verification required at least once each day the balance is used <sup>3</sup>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Cleanliness, air movement, vibration | • Cleanliness of balance is a must and air movement and vibration needs to be kept to a minimum <sup>1</sup> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Other                                | • Service and recalibrate annually (manufacturer representative or comparable) <sup>1</sup>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Must be able to measure to 0.1 grams <sup>4</sup>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Instrument manual available  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Adequate records kept <sup>6</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments:                              |  |   |          |

| Criteria   | Standard Methods Requirement  | Acceptable?   | Rating   |
|--|---|---|----------|
| <b>Drying Oven (Suspended Solids)</b>  |   |   |          |
| • Temperature Recordkeeping  | • Temperature recorded with each use <sup>4</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>M</b> |
|  |   | • Adequate records kept <sup>6</sup>                                |          |
| • Calibration Frequency/ Documentation   | • Thermometer calibrated annually with NIST traceable thermometer <sup>1,2</sup> . Correction factor posted on thermometer/equipment <sup>1</sup> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |          |
| • Other  | • Thermometer temperature in 0.1°C increments <sup>5</sup>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Acceptable temperature range is 103° – 105°F <sup>4</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Instrument manual available   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |          |
| Comments: 1. This was a second hand oven and did not have a manual. Lab technician will contact company to see if one can be obtained.<br>2. None of the thermometers have been calibrated. Lab technician will implement this ASAP. |   |   |          |

| Criteria                               | Standard Methods Requirement  | Acceptable?   | Rating   |
|--|---|---|----------|
| <b>pH Meter</b>                        |   |   |          |
| • Calibration Frequency/ Documentation | • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples) <sup>3</sup> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>A</b> |
|  |   | • Adequate records kept <sup>9</sup>                                |          |
| • Minimum of 2 point calibration       | • Calibration per manufacturer specification and calibration buffers must bracket anticipated result <sup>7</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Slope Documentation/ Acceptability   | • Slope acceptable range indicated on benchsheet <sup>2</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Buffer Expiration Date               | • Buffers must not be expired   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Other                                | • Instrument manual available   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Teflon covered magnetic stirrer or equivalent for mixing <sup>8</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments:                              |   |   |          |

## General Lab Criteria

| Criteria                                  | Standard Methods Requirement   | Acceptable?   | Rating   |
|---|--|---|----------|
| <b>Dissolved Oxygen Meter</b>             |  |   |          |
| • Calibration Method                      | • Air or known DO calibration method <sup>10</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>A</b> |
|   | • Calibration per manufacturer specification <sup>10</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Calibration Frequency/<br>Documentation | • Logbook maintained <sup>9</sup>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|   | • Calibration verification required at least once each day the meter is used. <sup>3</sup>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Other                                   | • Small to no bubble present under membrane (must be smaller than the lead in number 2 pencil) <sup>11</sup> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|   | • Instrument manual available  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments:                                 |  |   |          |

| Criteria   | Standard Methods Requirement   | Acceptable?   | Rating   |
|--|--|---|----------|
| <b>Incubator (CBOD)</b>  |  |   |          |
| • Temperature Recordkeeping  | • Temperature checked/recorded twice daily for each shelf in use <sup>1</sup>    | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NA | <b>M</b> |
|  | • Temperature checked/recorded daily <sup>2</sup> (CBOD)                         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Acceptable temperature range (CBOD) is 20°C ±1.0 <sup>12</sup>                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | • Acceptable temperature range (E-Coli) is 35°C ±0.5 <sup>22</sup>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NA |          |
|  | • Adequate records kept <sup>9</sup>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • Temperature Calibration/<br>Documentation  | • Thermometer calibrated annually with NIST traceable thermometer <sup>1,2</sup> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |          |
|  | • Temperature correction information posted on incubator <sup>1</sup>            | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| • E-Coli can use multiple tubes (five 20 ml or ten 10 mg), or mfg's multi-well tray  | • E-coli Ultraviolet lamp (365 nm wave length, 6 W bulb) <sup>23</sup>           | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NA |          |
| • Other  | • Instrument manual available  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |          |
|  | • Temperature Log (thermometer reads to 0.1 Celsius) <sup>5</sup>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments: 1. None of the thermometers have been calibrated. Lab technician will implement this ASAP.<br>2. Equipment is very old - manual is missing. Lab technician will contact company to see if one can be obtained. |  |   |          |

| Criteria                                    | Standard Methods Requirement   | Acceptable?   | Rating   |
|---|--|---|----------|
| <b>Refrigerator</b>                         |  |   |          |
| • Temperature Recordkeeping                 | • Temperature Log (thermometer reads to 0.1 Celsius) <sup>5</sup>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <b>U</b> |
| • Temperature Calibration/<br>Documentation | • Thermometer calibrated annually with NIST traceable thermometer <sup>1,2</sup> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |          |
| • Other                                     | • Thermometer held in water bath <sup>1</sup>                                    | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NA |          |
|   | • Refrigerator temperature ≤6° Celsius <sup>13</sup>                             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|   | • Do not store volatile solvents, food, or beverages <sup>14</sup>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments:                                   |  |   |          |

| Criteria                                  | Standard Methods Requirement                      | Acceptable?   | Rating   |
|---|---|---|----------|
| <b>Chlorine Meter</b>                     |   |   |          |
| • Calibration Frequency/<br>Documentation | • pH/millivolt meter read to 0.1 mV <sup>15</sup> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | <b>A</b> |
|   |   | • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples) <sup>3</sup> |          |

## General Lab Criteria

|  |  |   |  |  |
|--|--|---|--|--|
| • Calibration Method   | • Calibration using three iodate solutions 0.2, 1.0, 5.0 milliliters or calibration per manufacturer specification <sup>16</sup> | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  |
|  | • Standards used for calibration not expired   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> NA |  |
| • Slope Documentation/ Acceptability   | • Calibration curve (acceptable slope)   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  |
| • Other  | • Electrode free of deposits and foreign material  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  |
|  | • Adequate records kept <sup>9</sup>   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  |
|  | • Instrument manual available  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |  |
| Comments: No standards available because it is not chlorination season yet. Lab tech will order some soon before 5/1/11. |  |   |  |  |

| Criteria                               | Standard Methods Requirement  | Acceptable?                             |                             | Rating   |
|--|---|---|-----------------------------|----------|
| <b>Ammonia Meter</b>                   |   |   |                             |          |
| • Calibration Frequency/ Documentation | • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples) <sup>3</sup> | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <b>A</b> |
|  | • Adequate records kept <sup>9</sup>  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
| • Slope Acceptability                  | • Verify calibration slope is acceptable (per mfg. spec.)   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
| • Calibration Method                   | • Standards used for calibration (3 ammonia solutions of 10 mg/l, 1 mg/l, and 0.1 mg/l) or per mfg. spec. <sup>17</sup>                                     | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
|  | • Standards used for calibration not expired  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
| • Other                                | • Electrode free of deposits and foreign material   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
|  | • Teflon covered magnetic stirrer or equivalent for mixing <sup>18</sup>  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
|  | • Instrument manual available   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
| Comments:                              |   |   |                             |          |

| Criteria   | Standard Methods Requirement   | Acceptable?                             |  | Rating   |
|--|--|---|--|----------|
| <b>Sample Collection/Handling</b>  |  |   |  |          |
| • Sample Labeling  | • Samples container labeled (description, date, time, preservative added, initialed) <sup>19</sup> | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | <b>U</b> |
| • Chain of Custody   | • Chain of custody (description, date, time, signature) <sup>19</sup>                              | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |          |
| • Other  | • Composite samples refrigerated during sample collection <sup>14</sup>                            | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |          |
|  | • Equipment blanks utilized <sup>14</sup>  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |          |
|  | • SOP for cleaning of sampling equipment   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |          |
|  | • Adequate records kept <sup>9</sup>   | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |          |
| Comments: 1. Samples are not labeled with time or sampler's initials.<br>2. Chain of custody between person who removes the sample and sets it aside for the lab tech to pick up.<br>3. There is no written SOP for sampling equipment cleaning. |  |   |  |          |

| Criteria           | Standard Methods Requirement         | Acceptable?                             |                             | Rating   |
|--------------------|--------------------------------------|---|-----------------------------|----------|
| <b>Desiccator</b>  |                                      |   |                             |          |
| • General Criteria | • Properly working seals             | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <b>A</b> |
|                    | • Desiccant fresh (blue color)       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
| • Documentation    | • Adequate records kept <sup>9</sup> | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |          |
| Comments:          |                                      |   |                             |          |

## General Lab Criteria

| Criteria   | Standard Methods Requirement  | Acceptable?   | Rating   |
|--|---|---|----------|
| <b>Bench Sheets</b>  |   |   |          |
| <ul style="list-style-type: none"> <li>• General Criteria</li> </ul> | <ul style="list-style-type: none"> <li>• Date(s)<sup>2</sup></li> </ul>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>A</b> |
|  | <ul style="list-style-type: none"> <li>• Analyst initials<sup>2</sup></li> </ul>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | <ul style="list-style-type: none"> <li>• Blue or black ink pen<sup>2</sup></li> </ul>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | <ul style="list-style-type: none"> <li>• Calibration information<sup>2</sup></li> </ul>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | <ul style="list-style-type: none"> <li>• Equations, calculations, units for all measurements, notations, and results present<sup>2</sup></li> </ul> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | <ul style="list-style-type: none"> <li>• Corrections, single line through, initialed and dated<sup>2</sup></li> </ul>                               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments:  |   |   |          |

| Criteria   | Standard Methods Requirement   | Acceptable?   | Rating   |
|--|--|---|----------|
| <b>Hot Water Bath (Fecal Coliform/E. Coli)</b>   |  |   |          |
| <ul style="list-style-type: none"> <li>• Temperature Recordkeeping</li> </ul>                        | <ul style="list-style-type: none"> <li>• Temperature Log (thermometer reads 0.2° C)<sup>21</sup></li> </ul>  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                     | <b>M</b> |
|  |  | <ul style="list-style-type: none"> <li>• Incubator temperature 44.5° C ±0.2°<sup>21/24</sup></li> </ul> |          |
| <ul style="list-style-type: none"> <li>• Temperature Calibration/Documentation</li> </ul>            | <ul style="list-style-type: none"> <li>• Thermometer calibrated annually with NIST traceable thermometer<sup>1,2</sup></li> </ul>                    | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                     |          |
|  |  | <ul style="list-style-type: none"> <li>• Adequate records kept<sup>9</sup></li> </ul>                   |          |
| <ul style="list-style-type: none"> <li>• Water Level</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Thermometer total immersion or partial (line on thermometer to ID immersion depth)<sup>1,5</sup></li> </ul> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                     |          |
| Comments: 1. None of the thermometers have been calibrated. Lab technician will implement this ASAP. |  |   |          |

| Criteria   | Standard Methods Requirement  | Acceptable?  | Rating |
|--|---|--|--------|
| <b>Autoclaves/Steam Sterilizers</b>  |   |  |        |
| <ul style="list-style-type: none"> <li>• All apparatus utilized is adequately sterilized before use</li> </ul> | <ul style="list-style-type: none"> <li>• Sterilizing temperature 121° C<sup>25</sup></li> </ul>   | <input type="checkbox"/> Yes <input type="checkbox"/> No   |        |
|  |   | <ul style="list-style-type: none"> <li>• 10 to 30 minutes time based on material being sterilized<sup>26</sup></li> </ul>  |        |
| <ul style="list-style-type: none"> <li>• Documentation</li> </ul>  | <ul style="list-style-type: none"> <li>• Verify the autoclave temperature weekly by using a maximum registering thermometer (MRT) to confirm that 121°C has been reached as measured in the exhaust<sup>1</sup></li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No   |        |
|  |   | <ul style="list-style-type: none"> <li>• Date, contents, sterilization time and temperature, total time in autoclave, and analyst's initials should be recorded each time the autoclave is used<sup>1</sup></li> </ul> |        |
| <ul style="list-style-type: none"> <li>• Temperature Calibration/Documentation</li> </ul>                      | <ul style="list-style-type: none"> <li>• Thermometer calibrated annually with NIST traceable thermometer<sup>1,2</sup></li> </ul>   | <input type="checkbox"/> Yes <input type="checkbox"/> No   |        |
|  |   | <ul style="list-style-type: none"> <li>• Adequate records kept<sup>9</sup></li> </ul>  |        |
| <ul style="list-style-type: none"> <li>• Performance Checks</li> </ul>   | <ul style="list-style-type: none"> <li>• Test monthly for efficacy using a biological such as commercially available <i>Geobacillus stearothermophilus</i> in spore strips, suspensions, or capsules<sup>1</sup></li> </ul> | <input type="checkbox"/> Yes <input type="checkbox"/> No   |        |
| Comments:  |   |  |        |

## General Lab Criteria

| Criteria   | Standard Methods Requirement  | Acceptable?   | Rating   |
|--|---|---|----------|
| <b>Final Effluent Temperature Monitoring</b>                         |   |   |          |
| <ul style="list-style-type: none"> <li>• General Criteria</li> </ul> | <ul style="list-style-type: none"> <li>• Thermometer calibrated annually with NIST traceable thermometer<sup>1,2</sup></li> </ul> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <b>M</b> |
|  | <ul style="list-style-type: none"> <li>• Thermometer reads in increments of at least 0.1°C<sup>5</sup></li> </ul>                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
|  | <ul style="list-style-type: none"> <li>• Adequate records kept<sup>2</sup></li> </ul>   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |          |
| Comments:  |   |   |          |

|                                  |                                    |    |
|----------------------------------|------------------------------------|----|
| <b>Number of Criteria Rated:</b> | <b>Acceptable</b>                  | 7  |
|                                  | <b>Marginal</b>                    | 4  |
|                                  | <b>Unacceptable</b>                | 3  |
|                                  | <b>Total Number of Areas Rated</b> | 14 |

**Acceptable Ratings** – No action required (recommend SOP's written or updated, perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, written response not required).

**Marginal Ratings** – Improvements required, written response required (recommend SOP's be written or updated, recommend they perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response).

**Unsatisfactory Rating** – Improvements required, written response required, NOV issued (recommend SOP's be written or updated, recommend they perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response to NOV).

Consider recommending PAI Audit from DES when:

- >60% of ratings are Marginal
- >45% of ratings are a combination of Marginal or Unacceptable
- >30% of ratings are Unacceptable

# General Lab Criteria

## Notation of Referenced Method

|    |                         |    |                           |
|----|-------------------------|----|---------------------------|
| 1  | Method 9020-B, Item 4   | 14 | Method 1060A, Item 1      |
| 2  | Method 1020-A, Item 1   | 15 | Method 4500-CII, Item 2   |
| 3  | Method 1020-B, Item 10  | 16 | Method 4500-CII, Item 4   |
| 4  | Method 2540-B, Item 2   | 17 | Method 4500-NH3 D, Item 4 |
| 5  | Method 2550-B, Item 1   | 18 | Method 4500-NH3 D, Item 2 |
| 6  | Method 1020-B, Item 1   | 19 | Method 1060-B, Item 2     |
| 7  | Method 4500-H B, Item 4 | 20 | Method 1060-B, Item 1     |
| 8  | Method 4500-H B, Item 2 | 21 | Method 9222D, Item 1      |
| 9  | Method 1020-B, Item 2   | 22 | Method 9223 B, Item 2     |
| 10 | Method 4500-O B, Item 3 | 23 | Method 9223 B, Item 3     |
| 11 | Method 4500-O G, Item 3 | 24 | Method 1603, Item 2       |
| 12 | Method 5210-B, Item 5   | 25 | Method 9030-B, Item 3     |
| 13 | CFR 136.3, Table II     | 26 | Method 9020 B, Table IV   |

Equipment Logbook Content – All maintenance performed on a piece of equipment should be documented in the logbook. This should include parts replacement and routine maintenance activities. Entries should include date, maintenance performed and initials of person making entry.

| Preservation and Holding Times |                             |                       |             |   |   |   |
|--------------------------------|-----------------------------|-----------------------|-------------|---|---|---|
| Parameter                      | Container                   | Min. Sample Size (mL) | Sample Type | Preservation  | Maximum Storage Time  |   |
|                                |                             |                       |             |   | Recommended   | Regulatory  |
| BOD / CBOD                     | P, G                        | 1000                  | G, C        | Refrigerate $\leq 6^{\circ}\text{C}$  | 6h  | 48h   |
| TSS                            | P, G                        | 200                   | G, C        | Refrigerate $\leq 6^{\circ}\text{C}$  | 7 d   | 7 d   |
| pH                             | P, G                        | 50                    | G           | Analyze immediately   | 0.25h   | 0.25 h  |
| NH3-N                          | P, G                        | 500                   | G, C        | Analyze as soon as possible or add $\text{H}_2\text{SO}_4$ to pH <2, Refrigerate $\leq 6^{\circ}\text{C}$ | 7 d   | 28 d  |
| TRC                            | P, G                        | 500                   | G           | Analyze immediately   | 0.25h   | 0.25 h  |
| DO (electrode)                 | G, BOD Bottle               | 300                   | G           | Analyze immediately   | 0.25h   | 0.25 h  |
| Temperature                    | P, G                        | --                    | G           | Analyze immediately   | 0.25h   | 0.25 h  |
| Metals, general                | P, G                        | 1000                  | G, C        | For dissolved filter immediately and add $\text{HNO}_3$ to pH <2  | 6 months  | 6 months  |
| Purgeables by purge and trap   | G (PTFE lined lid)          | 40 (X2)               | G           | HCl to pH <2, Refrigerate $\leq 6^{\circ}\text{C}$  | 7 d   | 14 d  |
| Base/Neutrals and acids        | G (solvent rinsed or baked) | 1000                  | G, C        | Refrigerate $\leq 6^{\circ}\text{C}$  | 7 d   | 7 days until extraction<br>40 days after extraction |
| Pesticides                     | G (PTFE lined lid)          | 1000                  | C           | Refrigerate $\leq 6^{\circ}\text{C}$  | 7 d   | 7 days until extraction<br>40 days after extraction |
| Fecal Coliform / E-Coli        | G, P (Sterilized)           | 100                   | G           | Refrigerate $\leq 10^{\circ}\text{C}$<br>If chlorine present, add sodium thiosulfate tablet               | 6 hrs transport. Start analysis within 2 hrs of receipt in lab. |   |
| Oil and Grease                 | G                           | 1000                  | G           | HCl or $\text{H}_2\text{SO}_4$ to pH <2, Refrigerate $\leq 6^{\circ}\text{C}$                             | 28 d  | 28 d  |

## General Lab Criteria

| Approved Standard Methods                        |   |
|--|---|
| CBOD / BOD 5 Day                                 | Std Methods 5210-B                          |
| Ammonia, Selective Electrode Method              | Std Methods 4500-NH3 D                      |
| Total Residual Chlorine, DPD Colorimetric Method | Std Methods 4500-Cl G                       |
| Total Suspended Solids, Dried at 103-105°C       | Std Methods 2540-D                          |
| Dissolved Oxygen, Membrane Electrode Method      | Std Methods 4500-O G                        |
| pH, Electrometric Method                         | Std Methods 4500-H+ B                       |
| Fecal Coliform, Membrane Filter Procedure        | Std Methods 9222D                           |
| Escherichia Coli, Enzyme Substrate Test          | Std Method 9223B                            |
| Escherichia Coli Membrane Filtration Procedure   | EPA Method 1603                             |
| Oil and Grease                                   | USEPA 1664A or Std Methods 5520B            |
| Metals, general                                  | USEPA 200, Std Methods 3111B or C, or 3120B |
| Volatiles (Purgeables by purge and trap)         | USEPA 6210, Std Methods 624                 |
| Semi-Volatiles (Base/Neutrals and acids)         | USEPA 6410, Std Methods 625                 |
| Pesticides                                       | USEPA 6410 and 6630, Std Methods 608        |

**Recordkeeping requirements and responsibilities of a certified operator.**

- (A) The owner and operator of record of a public water system, treatment works or sewerage system shall maintain or cause to be maintained operation and maintenance records for each public water system, water treatment plant within a public water system, treatment works, or wastewater treatment facility within a treatment works. Some of the formats in which the records may be maintained include, but are not limited to, hard bound books with consecutive page numbering, time cards, separate operation and maintenance records, or well organized computer logs.
- (1) The records shall be housed and maintained in such a manner as to be protected from weather damage and guarantee the authenticity and accuracy of the records contained within.
  - (2) The records shall be accessible onsite for twenty-four hour inspection by agency or emergency response personnel.
  - (3) At a minimum, the following information shall be recorded:
    - (a) Identification of the public water system, sewerage system, or treatment works;
    - (b) *Date and times of arrival and departure for the operator of record and any other operator required by this chapter;*
    - (c) *Specific operation and maintenance activities that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced;*
    - (d) Results of tests performed and samples taken, unless documented on a laboratory sheet;
    - (e) Performance of preventative maintenance and repairs or requests for repair of the equipment that affect or have the potential to affect the quality or quantity of sewage or water conveyed, effluent or water produced; and
    - (f) Identification of the persons making entries.
  - (4) The records shall be kept up to date, contain a minimum of the previous three months of data at all times, and be maintained for at least three years.

(B) A certified operator shall:

- (1) Perform their duties in a responsible and professional manner consistent with standard operating procedures and best management practices;
- (2) Operate and maintain public water systems, sewerage systems, treatment works, and appurtenances so as not to endanger the health or safety of persons working in or around the facility, the public at large, or the environment due to negligence or incompetence; and
- (3) Report all instances of noncompliance with applicable regulations to the operator of record or facility supervisor.

(C) The duties of an operator of record shall include, but not be limited to, those outlined in paragraphs (B)(1) to (B)(3) of this rule and the following additional duties and responsibilities:

- (1) Responsible and effective on site management and supervision of the technical operation of the public water system, treatment works, or sewerage system;
- (2) Immediately notifying the permittee or owner of a public water system, sewerage system, or treatment works, and ensuring the agency and, if applicable, the local regulatory agency, is notified of items that require notification in accordance with sections 6109. or 6111. of the Revised Code, the rules adopted thereunder, or the facility's NPDES permit; and

(D) In the event that there are issues related to paragraphs (A) to (C) of this rule that are within the area of responsibility of, but beyond an operator of record or a certified operator's ability to address, it shall be the operator's responsibility to document any efforts to rectify the problem.

Effective: 12/21/2006

R.C. 119.032 review dates: 12/21/2011

Promulgated Under: 119.03

Statutory Authority: RC Sections 6111.46, 6109.04

Rule Amplifies: RC Sections 6111.46, 6109.04