

**Environmental  
Protection Agency**

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

April 23, 2012

**Re:** Perry County  
City of New Lexington  
Compliance Evaluation Inspection  
NPDES Permit 0PC00008\*FD  
Correspondence (PWW)

Mayor and Council  
City of New Lexington  
125 S. Main Street  
New Lexington, Ohio 43764

Dear Mayor and Council:

On January 31, 2012, I conducted a Compliance Evaluation Inspection of the city's wastewater treatment facility located in New Lexington, Ohio. Jennifer Witte, with this office, assisted me with the inspection. Mark Cooper represented the city and accompanied us during the inspection. Steve Cologie was also present in the laboratory. The purpose of the inspection was to determine the New Lexington wastewater treatment facility's compliance with NPDES Permit Number 0PC00008\*FD and the Ohio Water Pollution Control Act, Revised Code Chapter 6111.

As a result of the inspection and review of our files, I have the following comments:

1. The comminutor prior to the influent wet well was in operation during the inspection. The purpose of a comminutor is to cut solid waste materials coming into the plant into smaller pieces so that it is passed through to the next treatment process rather than removing it from the wastewater. During the inspection, we discussed installation of a mechanical bar screen to enhance treatment at the headworks, so that operators would not have to use nets to remove this material from downstream treatment unit. We recommend the city evaluate the effectiveness of a mechanical bar screen and consider installation of a mechanical bar screen.
2. At the plant headworks, there was evidence that the wastewater had reached a level of 6-feet above the base (i.e. 6-feet above the level of the influent bar screen). At the time of the inspection, we were informed that a quick rainstorm of approximately 1-inch will cause the water level in the influent headworks to rise soon after. Whereas, a similar rainfall over 24 hour period does not cause the basin level to rise.
3. The plant influent flow meter has not been calibrated. This must be done as soon as possible and annually thereafter.
4. The grate covers over the flow splitter box for the oxidation ditches are corroded and need to be replaced.

5. The influent wastewater continues to flow through the Imhoff tank. It appears this tank does not serve any useful purpose and allows solids to accumulate and settle out as well as trap solid waste materials. In addition, at the time of the inspection, we observed weeds growing in portions of tanks where the sludge had accumulated. We recommend the city eliminate the use of this tank and evaluate the need for additional treatment in its place. Once the tank is drained down, the sludge and solid waste material needs to be removed and the contents taken to a solid waste landfill for disposal. Please submit a written plan for elimination of this tank.
6. At the time of the inspection, both oxidation ditches were in operation and were full with rotors turning. The mixed liquor suspended solids appeared high and there was some foaming present.
7. The equalization basin (EQ basin) was full, and the mixers and aerators were running. Reportedly during storm conditions, the aerators and mixers are turned off, to allow settling and prevent solids carryover to the overflow outlet. Since this tank has been placed into operation, it has not been cleaned out. During our August 2011 site visit, there was a considerable amount of solid material which has been allowed to accumulate in the bottom of the tank. Please submit a work plan informing this office how the tank will be cleaned out by September 1, 2012. Some debris was seen on the edge of the outlet box, indicating that some floating debris is allowed to discharge from the tank. Please have your engineering consultant study the concept of installing a baffle or some device to keep such debris from discharging.
8. At the time of our inspection, the backup clarifier was not operating. PART III, Item (3)(A) of the Permit states, All wastewater treatment works shall be operated in a manner consistent with the following: At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. We expect this clarifier to be put back into operation immediately.
9. At the time of our inspection, the other final clarifier was operational. The weirs were in need of cleaning, and there was floating scum and sludge in the center feed well.
10. At the time of our inspection, one of the Return Activated Sludge (RAS) pumps had failed and a new one was on-hand and being installed.
11. The final effluent appeared to be visually clear at the time of the inspection. The effluent flow meter has not been calibrated. The flow meter must be calibrated no later than June 1, 2012 and annually thereafter.
12. Clean water intrusion into the collection system continues to be a problem. Overflows from the collection system, during wet weather conditions, occur from a manhole located on the lot of the Allen residence, 7099 Tunnel Hill Road. In addition, there are occasional overflows from the metered manhole at Thorn

Street and Rush Creek. The EQ basin is in use, to handle peak flows. We must have a detailed plan for removing clean water from the collection system and eliminating all overflows. Please provide this as soon as possible. The plan must contain timelines for accomplishing tasks. Please inform us in writing as to when we will receive a plan. In addition, please inform us of what tasks you have already completed.

13. The backup electric generator is exercised weekly. Plant equipment such as gearboxes, are maintained at least annually.
14. Please have an independent consultant evaluate plant and collection system staffing levels and make a recommendation to this office as to whether additional staff is needed.
15. A new biosolids press and building has been installed and final installation work (electrical, etc.) was underway.
16. A review of the discharge monitoring reports (DMR's) for the period January 2011 to March 1, 2012, showed no effluent limitation violations. The March 2011 DMR contained data entry errors which must be corrected. Data was entered in incorrect columns. Also, our data system did not appear to have the proper metals entered for station 581 in December 2011. Your operator reports that the 581 sampling was performed in June and December as required. Please determine whether there was a data entry error and resubmit if necessary.

During the above period there were a number of frequency violations, reportedly due to the operator's work schedule. Please note that Part II, Item D, (3)(a), of the permit, states that this reason for not sampling is only valid for daily sampling requirements, and only on Saturday, Sunday, and municipal holidays. You must therefore provide adequate staffing to meet the frequency requirements of the permit for non-daily requirements.

17. A review of the DMR's for the above period, showed the following frequency violations:

Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
<b>February 2012</b>					
001	Oil and Grease, Hexane	1/Month	1	0	02/01/2012
602	Flow Rate	1/Day	1	0	various days*
602	Duration of Discharge	1/Day	1	0	various days*
<b>January 2012</b>					
602	Flow Rate	1/Day	1	0	various days*
602	Duration of Discharge	1/Day	1	0	various days*
<b>November 2011</b>					
001	Oil and Grease, Hexane	1/Month	1	0	11/01/2011
001	Nitrite Plus Nitrate	1/Month	1	0	11/01/2011
001	Phosphorus, Total (P)	1/Month	1	0	11/01/2011

Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
001	CBOD 5 day	2/Week	2	0	11/01/2011
001	CBOD 5 day	2/Week	2	0	11/08/2011
001	CBOD 5 day	2/Week	2	0	11/15/2011
001	CBOD 5 day	2/Week	2	0	11/22/2011
<b>September 2011</b>					
001	CBOD 5 day	2/Week	2	1	09/08/2011
602	Flow Rate	1/Day	1	0	various days*
602	Duration of Discharge	1/Day	1	0	various days*
<b>August 2011</b>					
001	Nitrogen, Ammonia (NH3)	2/Week	2	1	08/15/2011
001	E. coli	2/Week	2	0	08/22/2011
<b>June 2011</b>					
001	Nitrogen, Ammonia (NH3)	2/Week	2	1	06/01/2011
001	Nitrogen, Ammonia (NH3)	2/Week	2	1	06/15/2011
<b>July 2011</b>					
001	CBOD 5 day	2/Week	2	1	07/01/2011
001	CBOD 5 day	2/Week	2	1	07/15/2011
601	Total Suspended Solids	2/Week	2	1	07/22/2011
601	CBOD 5 day	2/Week	2	1	07/22/2011
<b>May 2011</b>					
001	E. coli	2/Week	2	1	05/01/2011
001	E. coli	2/Week	2	1	05/08/2011
001	E. coli	2/Week	2	1	05/15/2011
<b>April 2011</b>					
001	Flow Rate	1/Day	1	0	04/29/2011
001	Flow Rate	1/Day	1	0	04/30/2011
001	CBOD 5 day	2/Week	2	1	04/15/2011
601	Total Suspended Solids	2/Week	2	1	04/15/2011
601	CBOD 5 day	2/Week	2	1	04/15/2011

\*failure to use AC code for zero discharge on those days (left blank)

Please be advised that failure to comply with the effluent limitations or to satisfy the monitoring or reporting requirements of your NPDES permit may be cause for enforcement action pursuant to the Ohio Revised Code Chapter 6111.

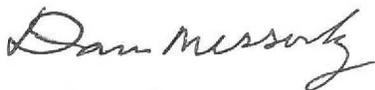
Please inform this office, in writing, within 14 days of receipt of this notification, as to the reasons for the above-referenced violations, as well as a description of the actions taken or proposed to prevent any further violations. Your response should include the dates, either actual or proposed, for completion of the actions.

18. We have reviewed your Wet Weather Flow Capacity Study Monitoring Plan. We have been in communication with you and Poggemeyer Design Group regarding some additions to the plan. Please keep in mind that our acceptance of this plan does not change what is already required by your NPDES permit compliance schedule (i.e. Part I, C). Your NPDES permit compliance schedule contains a Schedule to Perform Wet Weather Flow Capacity Study, as well as a Schedule to Meet Final Effluent Limitations for Phosphorus.
19. The City of New Lexington must insure the collection staff communicates issues/problems to Mark Cooper the Operator of Record for NPDES reporting purposes.
20. At the time of our inspection, we provided the enclosed schedule of compliance which we would like to incorporate into your NPDES permit. To date we have not received any comments regarding the proposed compliance schedule. I have enclosed an additional copy for your review. Please review and provide feedback. If you would like to schedule a meeting to discuss the schedule, please feel free to contact me.

Attached is a copy of the inspection report which indicates marginal evaluations for flow measurement, laboratory, self-monitoring, and unsatisfactory evaluations for collection system. I gave these ratings because of the deficiencies mentioned in the above comments and in the attached reports. Also attached is a General Lab Criteria report with ratings. The City of New Lexington should take the appropriate actions to return the facility to compliance with all terms and conditions of the NPDES permit.

Please respond to this letter in writing, to each of the above issues, within 14 days of the date of this letter.

Sincerely,



Dan Messerly  
District Representative  
Division of Surface Water

DM/dh

Enclosure

- c: Larry Reeder, DSW, CO
- c: Mark Cooper, City of New Lexington
- c: Chuck Hicks, City of New Lexington

# NPDES Compliance Inspection Report

## A. NATIONAL DATA SYSTEM CODING

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0PC00008*ED	OH0023531	January 31, 2012	C	S	1

## B. FACILITY DATA

Name & Location of Facility Inspected	Entry Time	Permit Effective Date
City of New Lexington Wastewater Treatment Works 5009 State Route 37 New Lexington, Ohio 43764	10:00 a.m.	August 1, 2010
	Exit Time	Permit Expiration Date
	2:15 p.m.	July 31, 2015

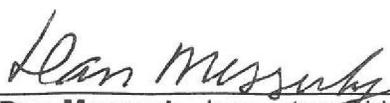
Name(s) & Title(s) of On-Site Representative(s)	Phone Number(s)
Mark Cooper, Superintendent	(740) 342-1443
Steve Cologie, Assistant Superintendent	
Scott A. Bryant, Administrative Director	(740) 342-1633
Chuck Hicks, Public Service Director (collections, etc.)	(740) 342-4227
Name, Address, & Title of Responsible Official	Phone Number
Mayor Dale Eveland and Council City of New Lexington 125 S. Main Street New Lexington, Ohio 43764	(740) 342-2177

## C. AREAS EVALUATED DURING INSPECTION

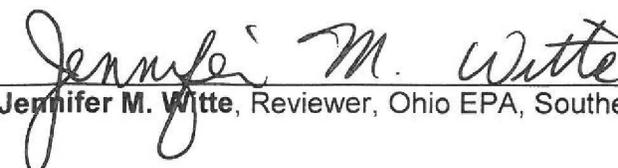
<u>  </u> S Permit	<u>  </u> M Flow Measurement	<u>  </u> N Pretreatment
<u>  </u> M Records/Reports	<u>  </u> M Laboratory	<u>  </u> S Compliance Schedules
<u>  </u> M Operations & Maintenance	<u>  </u> S Effluent/Receiving Waters	<u>  </u> M Self-Monitoring Program
<u>  </u> S Facility Site Review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

  
 Dan Messerly, Inspector, Ohio EPA, Southeast District Office

4-19-12  
 Date

  
 Jennifer M. Witte, Reviewer, Ohio EPA, Southeast District Office

4/20/12  
 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 ( <b><u>New biosolids press system</u></b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Notification given to state of new, different, or increased discharges	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

**F. COMPLIANCE SCHEDULES/VIOLATIONS**

	YES	NO	N/A	N/E
a. Any significant violations since the last inspection ( <b><u>overflows at manhole at 7099 Tunnel Hill Road</u></b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Permittee is taking actions to resolve violations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Permittee has compliance schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Compliance schedule contained in: <u>NPDES permit</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Permittee is meeting compliance schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**G. OPERATION AND MAINTENANCE**

Treatment Facility Properly Operated & Maintained	YES	NO	N/A	N/E
a. Standby power available: Generator: <input checked="" type="checkbox"/> (400 kW Kohler) 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 ( <b><u>phone dialer for influent pump station needs to be programmed; should also be programmed to alert for power outages</u></b> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. All treatment units in service other than backup units ( <b><u>back-up clarifier works but is not in service; use should be investigated as supplementary treatment</u></b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Sufficient operating staff provided: # of shifts: <u>1</u> Days/Week: <u>5</u> ( <b><u>see letter. 2 employees; 40 hrs. per week for each, plus plant check on weekends</u></b> )	<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>II</u> (holds <u>III</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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 ( <b><u>RAS pump (one of two) was being replaced on day of inspection. Main pump station went off-line once</u></b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Operation & maintenance manual provided & maintained ( <b><u>have 1988 URS O/M manual. Need updated manual.</u></b> )	<input type="checkbox"/>	<input checked="" 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 checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Record Keeping	YES	NO	N/A	N/E
a. Log book provided ( <b>Have log book on hand. Cologie has time card; Cooper is not hourly</b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Log book kept on-site	<input checked="" 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 checked="" type="checkbox"/>
2. Date/Time of arrival/departure of ORC ( <b>Date/time must be logged</b> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Daily record of operation and maintenance activities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Laboratory results (unless documented on bench sheets)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Identification of person making log entries	<input type="checkbox"/>	<input checked="" 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: d) SSO's have been reported lately, were not in the past, except Thorn Street metered manhole has been reported under the NPDES table in DMR. Plant bypasses only reported in DMR in accordance with tables. Effluent limit violations are infrequent - appears they have not reported these; have been told to do so recently.

Collection System	YES	NO	N/A	N/E
a. Percent combined system. Percent: <u>0</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Any collection system overflows since last inspection: 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 checked="" type="checkbox"/>	<input 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 ( <b>no lift stations on collection system</b> )	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Are lift stations equipped with permanent standby power or equivalent	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 ( <b>see letter</b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Any complaints received since last inspection of basement flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Are any portions of the sewer system at or near capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: c) Are currently notifying agency of overflows at manhole at 7099 Tunnel Hill Road, but agency was not notified in the past. Have historically notified agency of overflows at Thorn Street bypass manhole (002), on DMR. For SSO's currently notify C.O. via phone and letter to Ohio EPA and C.H.D.

## 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>Carl Wheeler (has been contracted in the past for land application; will now be landfilling since sludge press was obtained, and recently installed)</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 ( <b>Keep records; record pH during lime treatment process</b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Any complaints received in last year regarding sludge ( <b>Not in district office</b> )	<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 ( <b>lime is added to digester, mixed, pH monitored to meet 40 CFR 503 requirements, prior to land application</b> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# 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: <input type="checkbox"/> Ultrasonic & parshall flume <input type="checkbox"/> Calculated from influent <input type="checkbox"/> Weir <input type="checkbox"/> Other <input checked="" 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: <u>Not calibrated</u>	<input type="checkbox"/>	<input checked="" 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 checked="" 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: <input checked="" type="checkbox"/> Daily <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Other				

Comments: Facility has:

- plant influent magmeter with working chart recorder.
- E.Q. tank influent magmeter with totalizer; non-working chart recorder.
- Plant effluent weir and ultrasonic; with working chart recorder.
- Flow return from E.Q. to influent wet well via measuring level change of E.Q. tank; had pipe mounted meter that never worked with chart recorder.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: Effluent composite sampler pulls 175 ml after every 150 count intervals, and is therefore pulling a flow-paced composite sample.

d.i) Permittee does not have refrigerator for holding samples; except composite sampler refrigerator; permittee must obtain sample refrigerator for lab.

Part 3 – Laboratory, General	YES	NO	N/A	N/E
a. Written Standard Operating Procedures (SOPs) for all analysis performed on-site ( <b>provided Ohio EPA SOP's to operator following inspection</b> )	<input type="checkbox"/>	<input checked="" 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 ( <b>Phosphorus done more often (1x/week); is reported on DMR</b> )	<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: 1. Parameters analyzed by commercial lab: <u>New Lexington does CBOD, TSS, % solids, pH, temp., D.O. All other analyses done by outside lab.</u> 2. Lab name: <u>TCCI, New Lexington</u>				

<b>Part 3 – Laboratory, Quality Control/Quality Assurance</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	<b>N/E</b>
a. Quality assurance manual provided and maintained <b>(should have Q.A. manual)</b>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Results of latest U.S. EPA quality assurance performance sampling program: Date: <u>N/A</u> <input type="checkbox"/> Satisfactory <input type="checkbox"/> Marginal <input type="checkbox"/> Unsatisfactory				

Comments: See General Lab Criteria Report

**J. EFFLUENT/RECEIVING WATER OBSERVATIONS**

Outfall #	Oil Sheen	Grease	Turbidity	Visible Foam	Visible Float Solids	Color	Other
001	None	None	None	None	None	None	

**K. MULTIMEDIA OBSERVATIONS**

<b>Collection System</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	<b>N/E</b>
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?

## General Lab Criteria

Facility: City of New Lexington, OPC00008\*FD, 1/31/12

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 type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<b>M</b>
• Calibration Frequency/ Documentation	• Calibration verification required at least once each day the balance is used <sup>3</sup>	<input type="checkbox"/> Yes	<input checked="" 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 type="checkbox"/> Yes	<input checked="" 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	
	• Log book maintained <sup>6</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Comments: Log book needed				

Criteria	Standard Methods Requirement	Acceptable?		Rating
<b>Drying Oven (Suspended Solids)</b>				
• Temperature Recordkeeping	• Temperature recorded with each use <sup>4</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<b>M</b>
	• Log book maintained <sup>6</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
• 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> N/E	<input 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments: Log book needed				

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>M</b>
	• Log book maintained <sup>9</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
• Minimum of 2 point calibration	• Calibration per manufacturer specification and calibration buffers must bracket anticipated result <sup>7</sup> Some issues; see below	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
• Slope Documentation/ Acceptability	• Slope acceptable range indicated on benchsheet <sup>2</sup>	<input 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: Were using pH 4.00 and 7.00 buffers, when effluent anticipated result is above 7.00 (although 801/901 is typically below 7.00). For effluent, should therefore use pH 7.00 and 10.0 buffers. See SOP's provided for guidance. pH buffers should be discarded 90 days after being opened. New buffers had been received 1/19/12. Log book needed.				

## 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>M</b>
	• Calibration per manufacturer specification <sup>10</sup>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
• Calibration Frequency/ Documentation	• Logbook maintained <sup>9</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
	• Calibration verification required at least once each day the meter is used. <sup>3</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
• Other	• Small to no bubble present under membrane (must be smaller than the lead in number 2 pencil) <sup>11</sup> N/E	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Instrument manual available	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments: YSI 5000. Were calibrating 1x/2-3 weeks.				

Criteria	Standard Methods Requirement		Acceptable?	Rating
<b>Incubator (CBOD/E-Coli)</b>				
• Temperature Recordkeeping	• Temperature checked/recorded twice daily for each shelf in use <sup>1</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<b>M</b>
	• Temperature checked/recorded daily <sup>2</sup> (CBOD) – do not write down	<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> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Logbook maintained <sup>9</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
• Temperature Calibration/ 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 type="checkbox"/> Yes	<input checked="" 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> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Other	• Instrument manual available	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Temperature Log (thermometer reads to 0.1 Celsius) <sup>5</sup>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Comments: Log book needed. E-coli sent to lab.				

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>M</b>
• Temperature Calibration/ 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"/> No	
	• Refrigerator temperature ±6° Celsius <sup>13</sup> (effluent comp. sampler)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Do not store volatile solvents, food, or beverages <sup>14</sup> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments: Effluent composite sampler is refrigerated, and has thermometer. Thermometer is old. Facility has no other refrigerator for holding samples (other than for storing food).				

Criteria	Standard Methods Requirement		Acceptable?	Rating
<b>Chlorine Meter</b>				
• Calibration Frequency/ Documentation	• pH/millivolt meter read to 0.1 mV <sup>15</sup>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<b>N/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>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

## 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 type="checkbox"/> Yes	<input type="checkbox"/> No
	• Standards used for calibration not expired	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Slope Documentation/ Acceptability	• Calibration curve (acceptable slope)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Other	• Electrode free of deposits and foreign material	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• Log book being maintained <sup>9</sup>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	• Instrument manual available	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Comments:			

Criteria	Standard Methods Requirement	Acceptable?		Rating
<b>Ammonia Meter</b>				<b>N/A</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 type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Log book being maintained <sup>9</sup>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Slope Acceptability	• Verify calibration slope is acceptable (per mfg. spec.)	<input 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 type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Standards used for calibration not expired	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Other	• Electrode free of deposits and foreign material	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Teflon covered magnetic stirrer or equivalent for mixing <sup>18</sup>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Instrument manual available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments: Sample is collected, sent to TCCI lab.				

Criteria	Standard Methods Requirement	Acceptable?		Rating
<b>Sample Collection/Handling</b>				<b>M</b>
• Sample Labeling	• Samples container labeled (description, date, time, preservative added, initialed) <sup>19</sup>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
• Chain of Custody	• Chain of custody (description, date, time, signature) <sup>19</sup>	<input checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Log book being maintained <sup>9</sup> (use bench sheet only)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Comments: Manual composites not refrigerated. Use certain protocol for cleaning equipment; will send Ohio EPA SOP for additional guidance.				

Criteria	Standard Methods Requirement	Acceptable?		Rating
<b>Desiccator</b>				<b>M</b>
• General Criteria	• Properly working seals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	• Desiccant fresh (blue color)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
• Documentation	• Log book being maintained <sup>9</sup>	<input type="checkbox"/> Yes	<input checked="" 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>M</b>
	<ul style="list-style-type: none"> <li>• Analyst initials<sup>2</sup> (S. Cologie usually does lab work)</li> </ul>	<input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	<ul style="list-style-type: none"> <li>• Equations, calculations, units for all measurements, notations, and results present<sup>2</sup> Only basics on sheets; could improve this</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> (white out)</li> </ul>	<input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input type="checkbox"/> No	<b>N/A</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 type="checkbox"/> No	
		<ul style="list-style-type: none"> <li>• Log book being maintained<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 type="checkbox"/> Yes <input type="checkbox"/> No	
Comments:			

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	<b>N/A</b>
		<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>• Log book being maintained<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>• Log book being maintained<sup>2</sup></li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Comments: Use temp/pH meter for effluent temp.			

<b>Number of Criteria Rated:</b>	<b>Acceptable</b>	0
	<b>Marginal</b>	10
	<b>Unacceptable</b>	0
<b>Total Number of Areas Rated</b>		10

**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-CI I, Item 2
3 Method 1020-B, Item 10	16 Method 4500-CI I, 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 ≤6°C	6h	48h
TSS	P, G	200	G, C	Refrigerate ≤6°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 H <sub>2</sub> SO <sub>4</sub> to pH <2, Refrigerate ≤6°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 HNO <sub>3</sub> to pH <2	6 months	6 months
Purgeables by purge and trap	G (PTFE lined lid)	40 (X2)	G	HCl to pH <2, Refrigerate ≤6°C	7 d	14 d
Base/Neutrals and acids	G (solvent rinsed or baked)	1000	G, C	Refrigerate ≤6°C	7 d	7 days until extraction 40 days after extraction
Pesticides	G (PTFE lined lid)	1000	C	Refrigerate ≤6°C	7 d	7 days until extraction 40 days after extraction
Fecal Coliform / E-Coli	G, P (Sterilized)	100	G	Refrigerate ≤10°C 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 H <sub>2</sub> SO <sub>4</sub> to pH <2, Refrigerate ≤6°C	28 d	28 d

## General Lab Criteria

<b>Approved Standard Methods</b>	
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

1. Within thirty (30) days after the effective date of this permit modification, the Permittee shall submit to Ohio EPA for review and approval, a plan detailing how the City shall comply with the following:

All wastewater treatment works shall be operated in a manner consistent with the following:

- a. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of the NPDES permit. Proper operation and maintenance includes but is not limited to, properly functioning of the two clarifiers, trickling filters, adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with conditions of the NPDES permit.
  - b. The permittee shall effectively monitor the operation and efficiency of treatment and control facilities and the quantity and quality of the treated discharge.
2. The Permittee shall submit corrections/revisions to address any deficiencies in the plan set forth in Item 1 within thirty (30) days of receipt of written notification from Ohio EPA of any deficiencies, unless additional time is requested and allowed.
  3. The Permittee shall comply with the plan set forth in Item 1 as approved and/or modified by Ohio EPA.
  4. Schedule to Perform Wet Weather Flow Capacity Study.
    - a. No later than August 1, 2012, the permittee shall complete and submit to Ohio EPA a wet weather flow capacity study of the influent pump station and treatment works. The study shall include:
      - i. An evaluation of the pumping capacity of the influent pump station to determine pumping capacity to confirm the pump station is pumping at peak capacity including the use of all pumps in operation.
      - ii. An evaluation of the hydraulic treatment capacity of the treatment works including converting to contact stabilization mode during wet weather to allow more flow to receive secondary treatment. This shall also include increasing treatment capacity before sewage flow

- iv. Within six (6) months of the effective date of the permit to install and detail plan approval, the Permittee shall commence construction of improvements to the existing treatment work or commence construction of a new treatment works in accordance with the approved permit to install and detailed plans.
- v. Within fifteen (15) months of the effective date of the permit to install and detail plan approval, complete construction and obtain and maintain operational level of the improved existing treatment works or the new treatment works.