

PERMIT NO. MI0027391



**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4, and 1995-18,

**Muskegon County Board of Public Works**  
990 Terrace Street  
Muskegon, Michigan 49442

is authorized to discharge from the **Muskegon County Wastewater Management System-Metro** facility located at

8301 White Road  
Muskegon, Michigan 49442

designated as **Muskegon Co WWMS Metro WWTP**

to the receiving water named the Muskegon River and Muskegon/Newaygo Drain in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

This permit is based on a complete application submitted on April 2, 2007.

**This permit takes effect on November 1, 2008.** The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0027391, expiring October 1, 2007.

This permit and the authorization to discharge shall expire at midnight, **October 1, 2012**. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information, forms, and fees as are required by the Department by **April 4, 2012**.

**Issued** September 19, 2008

Original Permit Signed by Daniel Dell  
Daniel Dell, Acting Chief  
Permits Section  
Water Bureau

## **PERMIT FEE REQUIREMENTS**

In accordance with Section 324.3120 of the Michigan Act, the permittee shall make payment of an annual permit fee to the Department for each October 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by January 15 for notices mailed by December 1. The fee is due no later than 45 days after receiving the notice for notices mailed after December 1.

In accordance with Section 324.3132 of the Michigan Act, the permittee shall make payment of an annual biosolids land application fee to the Department if the permittee land applies biosolids. In response to the Department's annual notice, the permittee shall submit the fee, which shall be postmarked no later than January 31 of each year.

## **CONTACT INFORMATION**

Unless specified otherwise, all contact with the Michigan Department of Environmental Quality (the "Department") required by this permit shall be made to the Grand Rapids District Supervisor of the Water Bureau. The Grand Rapids District Office is located at the State Office Building, Fifth Floor, 350 Ottawa, NW, Unit 10, Grand Rapids, Michigan 49503-2341, telephone: 616-356-0500, fax: 616-356-0202.

## **CONTESTED CASE INFORMATION**

Any person who is aggrieved by this permit may file a sworn petition with the State Office of Administrative Hearings and Rules of the Michigan Department of Labor and Economic Growth, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Labor and Economic Growth may reject any petition filed more than 60 days after issuance as being untimely.

**PART I**

**Section A. Limitations and Monitoring Requirements**

**1. Final Effluent Limitations, Monitoring Point 001A**

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 001A through Outfall 001. Outfall 001 discharges to the Muskegon River. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>																						
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>																								
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow																						
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )																																
Oct. 1 – Nov. 30	6500	9700	---	lbs/day	18	---	27	mg/l	Weekly	24-Hr Composite																						
Dec. 1 – Apr. 30	9000	14000	---	lbs/day	25	40	---	mg/l	Weekly	24-Hr Composite																						
May 1 - 31	3900	6100	---	lbs/day	11	---	17	mg/l	Weekly	24-Hr Composite																						
June 1 – Sept. 30	3200	4700	---	lbs/day	9	---	13	mg/l	Weekly	24-Hr Composite																						
Total Suspended Solids																																
	5400	9000	---	lbs/day	15	25	---	mg/l	3×Weekly	24-Hr Composite																						
Ammonia Nitrogen (as N)																																
Oct. 1 – Nov. 30	---	3900	---	lbs/day	---	---	11	mg/l	3×Weekly	24-Hr Composite																						
Dec. 1 – Apr. 30	---	(report)	---	lbs/day	---	---	(report)	mg/l	3×Weekly	24-Hr Composite																						
May 1 - 31	---	3400	---	lbs/day	---	---	9.5	mg/l	3×Weekly	24-Hr Composite																						
June 1 – Sept. 30	180	720	---	lbs/day	0.5	---	2.0	mg/l	3×Weekly	24-Hr Composite																						
Total Phosphorus (as P)																																
May 1 – Oct. 31	2000	---	---	lbs/day	0.09	---	---	mg/l	3×Weekly	24-Hr Composite																						
Nov. 1 - 30	3200	---	---	lbs/day	0.2	---	---	mg/l	3×Weekly	24-Hr Composite																						
Dec. 1 – Mar. 31	1500	---	---	lbs/day	0.2	---	---	mg/l	3×Weekly	24-Hr Composite																						
April 1 - 30	3000	---	---	lbs/day	0.2	---	---	mg/l	3×Weekly	24-Hr Composite																						
Fecal Coliform Bacteria	---	---	---	---	200	400	---	cts/100 ml	5×Weekly	Grab																						
Total Copper	---	---	---	---	---	---	(report)	µg/l	Monthly	24-Hr Composite																						
Acute Toxicity, see Part I.A.1.g.	---	---	---	---	---	---	1.0	TU <sub>A</sub>	2×Yearly	24-Hr Composite																						
Chronic Toxicity, see Part I.A.1.g.	---	---	---	---	3.9	---	---	TU <sub>C</sub>	2×Yearly	24-Hr Composite																						
Available Cyanide	9.1	---	---	lbs/day	20	---	---	µg/l	Weekly	Grab																						
Total Mercury	(report)	---	---	lbs/day	(report)	---	---	ng/l	Monthly	Grab																						
<table border="0" style="width:100%; text-align:center;"> <tr> <td></td> <td><b><u>12-Month</u></b></td> <td></td> <td></td> <td></td> <td><b><u>12-Month</u></b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td><b><u>Rolling Average</u></b></td> <td></td> <td></td> <td></td> <td><b><u>Rolling Average</u></b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												<b><u>12-Month</u></b>				<b><u>12-Month</u></b>							<b><u>Rolling Average</u></b>				<b><u>Rolling Average</u></b>					
	<b><u>12-Month</u></b>				<b><u>12-Month</u></b>																											
	<b><u>Rolling Average</u></b>				<b><u>Rolling Average</u></b>																											
Total Mercury	0.0053	---	---	lbs/day	10	---	---	ng/l	Monthly	Calculation																						
<table border="0" style="width:100%; text-align:center;"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b><u>Minimum</u></b></td> <td></td> <td><b><u>Maximum</u></b></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b><u>Daily</u></b></td> <td></td> <td><b><u>Daily</u></b></td> <td></td> <td></td> <td></td> </tr> </table>																<b><u>Minimum</u></b>		<b><u>Maximum</u></b>									<b><u>Daily</u></b>		<b><u>Daily</u></b>			
					<b><u>Minimum</u></b>		<b><u>Maximum</u></b>																									
					<b><u>Daily</u></b>		<b><u>Daily</u></b>																									
pH	---	---	---	---	6.5	---	9.0	S.U.	5×Weekly	Grab																						

**PART I**

**Section A. Limitations and Monitoring Requirements**

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
					<u>Minimum Daily</u>		<u>Maximum Daily</u>			
Dissolved Oxygen										
Oct. 1 – May 31	---	---	---	---	4.0	---	---	mg/l	5×Weekly	Grab
June 1 – Sept. 30	---	---	---	---	5.5	---	---	mg/l	5×Weekly	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 43 MGD

- a. **Narrative Standard**  
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.
- b. **Sampling Locations**  
Samples for all parameters in Part I.A.1 shall be taken of the final effluent. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.
- c. **Analytical Method(s) and Quantification Level(s) for Total Copper and Available Cyanide**  
The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Total Copper shall be in accordance with an EPA Approved Methods. The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Available Cyanide shall be in accordance with EPA Method OIA-1677. The quantification level for Total Copper shall be 1 µg/l unless a higher level is appropriate because of sample matrix interference. The quantification level for Available Cyanide shall be 2 µg/l unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination. Upon approval of the Department, the permittee may use alternate analytical methods (for parameters with methods specified in 40 CFR 136, the alternate methods are restricted to those listed in 40 CFR 136).
- d. **Monitoring Frequency Reduction for Available Cyanide**  
After the submittal of 12 months of data, the permittee may request, in writing, Department approval of a reduction in monitoring frequency for available cyanide. This request shall contain an explanation as to why the reduced monitoring is appropriate. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.1 of this permit. The monitoring frequency for available cyanide shall not be reduced to less than monthly. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.
- e. **Final Effluent Limitation for Total Mercury**  
The final limit for total mercury is the Level Currently Achievable (LCA) based on a multiple discharger variance from the water quality-based effluent limit of 1.3 ng/l, pursuant to Rule 323.1103(9) of the Water Quality Standards. Compliance with the LCA shall be determined as a 12-month rolling average. The 12-month rolling average shall be determined by adding the present monthly average result to the preceding 11 monthly average results then dividing the sum by 12. For facilities with quarterly monitoring requirements for total mercury, quarterly monitoring shall be equivalent to 3 months of monitoring in calculating the 12-month rolling average. Facilities that monitor more frequently than monthly for total mercury must determine the monthly average result, which is the sum of the results of all data obtained in a given month divided by the total number of samples taken, in order to calculate the 12-month rolling average. If the 12-month rolling average for any month is less than the LCA, the permittee will be considered to be in compliance for total mercury for that month, provided the permittee is also in full compliance with the Pollutant Minimization Program for Total Mercury, set forth in Part I.A.4.

## PART I

### Section A. Limitations and Monitoring Requirements

The permittee may choose to demonstrate that an alternate site-specific LCA is appropriate and request a permit modification. Such request and supporting documentation shall be submitted in writing to the Department. Supporting documentation shall include a minimum of 12 samples taken over a 12 month period in accordance with EPA Method 1631. Upon approval, this permit may be modified in accordance with applicable laws and rules to incorporate the alternate site-specific LCA as the effluent limitation for total mercury.

After a minimum of 12 monthly data points have been collected, the permittee may request a reduction in the monitoring frequency if the data indicate that the 12-month rolling average mercury concentration is less than 5 ng/l. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Department. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency for total mercury indicated in Part I.A.1 of this permit. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee

f. Total Mercury Testing Requirements

The analytical protocol for total mercury shall be in accordance with EPA Method 1631, Revision E, "Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry". The quantification level for total mercury shall be 0.5 ng/l, unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The use of clean technique sampling procedures is strongly recommended. Guidance for clean technique sampling is contained in: EPA Method 1669, *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels (Sampling Guidance)*, EPA-821-R96-001, July 1996. Information and data documenting the permittee's sampling and analytical protocols and data acceptability shall be submitted to the Department upon request.

g. Whole Effluent Toxicity Final Requirements

Test species shall include fathead minnow **and** *Ceriodaphnia dubia*. The permittee shall conduct the whole effluent toxicity using fathead minnows while the permit is in effect. At least one test occurring in 2011 shall be conducted using both species. Testing and reporting procedures shall follow procedures contained in EPA/600/4-91/002, "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (Fourth Edition)." When the effluent ammonia nitrogen (as N) concentration is greater than 3 mg/l, the pH of the toxicity test shall be maintained at a pH of 8 Standard Units. The acute toxic unit value (TU<sub>A</sub>) and chronic toxic unit value (TU<sub>C</sub>) for **each species tested** shall be reported on the Discharge Monitoring Report (DMR). If multiple chronic toxicity tests for the same species are performed during the month, the maximum TU<sub>A</sub> value and monthly average TU<sub>C</sub> value for the species shall be reported. For **each species not tested**, the permittee shall enter "**\*W**" on the DMR. Completed toxicity test reports for each test conducted shall be retained by the permittee in accordance with the requirements of Part II.B.5. of this permit and shall be available for review by the department upon request. Toxicity test data acceptability is contingent upon validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

After the submittal of 12 months of data, the permittee may request, in writing, Department approval of a reduction in monitoring frequency for Whole Effluent Toxicity (WET). This request shall contain an explanation as to why the reduced monitoring is appropriate. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.1 of this permit. The monitoring frequency for WET shall not be reduced to less than annually. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.

1) When monitoring shows persistence exceedance of the 3.9 TU<sub>C</sub> limit or the 1.0 TU<sub>A</sub> limit for effluent toxicity, the Department will determine whether the permittee must implement the toxicity control program requirements specified in 2) below.

**PART I**

**Section A. Limitations and Monitoring Requirements**

2) Upon written notification by the Department, the following conditions apply. Within 90 days of the notification, the permittee shall implement a Toxicity Reduction Evaluation (TRE). The objective of the TRE shall be to reduce the toxicity of the final effluent from monitoring point 001A to  $\leq 3.9 TU_C$  and  $\leq 1.0 TU_A$ . The following documents are available as guidance to reduce toxicity to acceptable levels: Phase I, EPA/600/6-91/005F (chronic), EPA/600/6-91/003 (acute); Phase II, EPA/600/R-92/080 (acute and chronic); Phase III, EPA/600/R-92/081 (acute and chronic); and Publicly Owned Treatment Works (POTWs), EPA/833B-99/002. Annual reports shall be submitted to the Department within 30 days of the completion of the last test of each annual cycle.

**2. Final Effluent Limitations, Monitoring Point 002A**

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 002A through Outfall 002. Outfall 002 discharges to Muskegon/Newaygo Drain. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>																						
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>																								
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow																						
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )																																
Oct. 1 – Nov. 30	460	670	---	lbs/day	13	---	19	mg/l	Weekly	24-Hr Composite																						
Dec. 1 – Mar. 31	---	1100	---	---	---	---	30	mg/l	Weekly	24-Hr Composite																						
Apr. 1 – Sept. 30	140	350	---	lbs/day	4	---	10	mg/l	Weekly	24-Hr Composite																						
Total Suspended Solids																																
Oct. 1 – Mar. 31	880	1200	---	lbs/day	25	35	---	mg/l	3×Weekly	24-Hr Composite																						
Apr. 1 – Sept. 30	700	1100	---	lbs/day	20	30	---	mg/l	3×Weekly	24-Hr Composite																						
Ammonia Nitrogen (as N)																																
Oct. 1 – Nov. 30	67	---	---	lbs/day	1.9	---	---	mg/l	3×Weekly	24-Hr Composite																						
Dec. 1 – Apr. 30	110	---	---	lbs/day	3.2	---	---	mg/l	3×Weekly	24-Hr Composite																						
May 1 - 31	46	180	---	lbs/day	1.3	---	5.0	mg/l	3×Weekly	24-Hr Composite																						
June 1 – Sept. 30	18	70	---	lbs/day	0.5	---	2.0	mg/l	3×Weekly	24-Hr Composite																						
Total Phosphorus (as P)	---	---	---	---	0.2	---	---	mg/l	3×Weekly	24-Hr Composite																						
Fecal Coliform Bacteria	---	---	---	---	200	400	---	cts/100 ml	5×Weekly	Grab																						
Total Copper	0.67	---	---	lbs/day	19	---	---	µg/l	Monthly	24-Hr Composite																						
Acute Toxicity	---	---	---	---	---	---	1.0	TU <sub>A</sub>	Monthly	24-Hr Composite																						
Chronic Toxicity	---	---	---	---	1.0	---	---	TU <sub>C</sub>	Monthly	24-Hr Composite																						
Available Cyanide	0.18	---	---	lbs/day	5.2	---	---	µg/l	Weekly	Grab																						
Total Mercury	(report)	---	---	lbs/day	(report)	---	---	ng/l	Quarterly	Grab																						
<table border="0" style="width:100%; text-align:center;"> <tr> <td></td> <td><b>12-Month</b></td> <td></td> <td></td> <td></td> <td><b>12-Month</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td><b><u>Rolling Average</u></b></td> <td></td> <td></td> <td></td> <td><b><u>Rolling Average</u></b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												<b>12-Month</b>				<b>12-Month</b>							<b><u>Rolling Average</u></b>				<b><u>Rolling Average</u></b>					
	<b>12-Month</b>				<b>12-Month</b>																											
	<b><u>Rolling Average</u></b>				<b><u>Rolling Average</u></b>																											
Total Mercury	0.00035	---	---	lbs/day	10	---	---	ng/l	Monthly	Calculation																						

**PART I**

**Section A. Limitations and Monitoring Requirements**

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
pH	---	---	---	---	<u>Minimum Daily</u> 6.5	---	<u>Maximum Daily</u> 9.0	S.U.	5×Weekly	Grab
Dissolved Oxygen	---	---	---	---	7.0	---	---	mg/l	5×Weekly	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 4.2 MGD

- a. **Narrative Standard**  
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.
- b. **Sampling Locations**  
Samples for all parameters in Part I.A.1 shall be taken of the final effluent. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.
- c. **Analytical Method(s) and Quantification Level(s) for Total Copper and Available Cyanide**  
The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Total Copper shall be in accordance with an EPA Approved Methods. The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Available Cyanide shall be in accordance with EPA Method OIA-1677. The quantification level for Total Copper shall be 1 µg/l unless a higher level is appropriate because of sample matrix interference. The quantification level for Available Cyanide shall be 2 µg/l unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination. Upon approval of the Department, the permittee may use alternate analytical methods (for parameters with methods specified in 40 CFR 136, the alternate methods are restricted to those listed in 40 CFR 136).
- d. **Monitoring Frequency Reduction for Available Cyanide**  
After the submittal of 12 months of data, the permittee may request, in writing, Department approval of a reduction in monitoring frequency for available cyanide. This request shall contain an explanation as to why the reduced monitoring is appropriate. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.2 of this permit. The monitoring frequency for available cyanide shall not be reduced to less than monthly. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.
- e. **Final Effluent Limitation for Total Mercury**  
The final limit for total mercury is the Level Currently Achievable (LCA) based on a multiple discharger variance from the water quality-based effluent limit of 1.3 ng/l, pursuant to Rule 323.1103(9) of the Water Quality Standards. Compliance with the LCA shall be determined as a 12-month rolling average. The 12-month rolling average shall be determined by adding the present monthly average result to the preceding 11 monthly average results then dividing the sum by 12. For facilities with quarterly monitoring requirements for total mercury, quarterly monitoring shall be equivalent to 3 months of monitoring in calculating the 12-month rolling average. Facilities that monitor more frequently than monthly for total mercury must determine the monthly average result, which is the sum of the results of all data obtained in a given month divided by the total number of samples taken, in order to calculate the 12-month rolling average. If the 12-month rolling average for any month is less than the LCA, the permittee will be considered to be in compliance for total mercury for that month, provided the permittee is also in full compliance with the Pollutant Minimization Program for Total Mercury, set forth in Part I.A.4.

## PART I

### Section A. Limitations and Monitoring Requirements

The permittee may choose to demonstrate that an alternate site-specific LCA is appropriate and request a permit modification. Such request and supporting documentation shall be submitted in writing to the Department. Supporting documentation shall include a minimum of 12 samples taken over a 12 month period in accordance with EPA Method 1631. Upon approval, this permit may be modified in accordance with applicable laws and rules to incorporate the alternate site-specific LCA as the effluent limitation for total mercury.

After a minimum of 12 monthly data points have been collected, the permittee may request a reduction in the monitoring frequency if the data indicate that the 12-month rolling average mercury concentration is less than 5 ng/l. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Department. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency for total mercury indicated in Part I.A.2 of this permit. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.

f. Total Mercury Testing Requirements

The analytical protocol for total mercury shall be in accordance with EPA Method 1631, Revision E, "Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry". The quantification level for total mercury shall be 0.5 ng/l, unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The use of clean technique sampling procedures is strongly recommended. Guidance for clean technique sampling is contained in: EPA Method 1669, *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels (Sampling Guidance)*, EPA-821-R96-001, July 1996. Information and data documenting the permittee's sampling and analytical protocols and data acceptability shall be submitted to the Department upon request.

g. Whole Effluent Toxicity Final Requirements

Test species shall include fathead minnow **and** *Ceriodaphnia dubia*. Testing and reporting procedures shall follow procedures contained in EPA/600/4-91/002, "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (Fourth Edition)." When the effluent ammonia nitrogen (as N) concentration is greater than 3 mg/l, the pH of the toxicity test shall be maintained at a pH of 8 Standard Units. The acute toxic unit value (TU<sub>A</sub>) and chronic toxic unit value (TU<sub>C</sub>) for **each species tested** shall be reported on the Discharge Monitoring Report (DMR). If multiple chronic toxicity tests for the same species are performed during the month, the maximum TU<sub>A</sub> value and monthly average TU<sub>C</sub> value for the species shall be reported. For **each species not tested**, the permittee shall enter "**\*W**" on the DMR. Completed toxicity test reports for each test conducted shall be retained by the permittee in accordance with the requirements of Part II.B.5. of this permit and shall be available for review by the department upon request. After one (1) year of toxicity testing and upon approval of the Department, the chronic toxicity tests may be performed using the more sensitive species identified in the chronic toxicity database. If a more sensitive species cannot be identified, the chronic toxicity tests shall be performed with both species. Toxicity test data acceptability is contingent upon validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

1) When monitoring shows persistence exceedance of the 1.0 TU<sub>C</sub> limit or the 1.0 TU<sub>A</sub> limit for effluent toxicity, the Department will determine whether the permittee must implement the toxicity control program requirements specified in 2) below.

2) Upon written notification by the Department, the following conditions apply. Within 90 days of the notification, the permittee shall implement a Toxicity Reduction Evaluation (TRE). The objective of the TRE shall be to reduce the toxicity of the final effluent from monitoring point 002A to  $\leq 1.0$  TU<sub>C</sub> and  $\leq 1.0$  TU<sub>A</sub>. The following documents are available as guidance to reduce toxicity to acceptable levels: Phase I, EPA/600/6-91/005F (chronic), EPA/600/6-91/003 (acute); Phase II, EPA/600/R-92/080 (acute and chronic); Phase III, EPA/600/R-92/081 (acute and chronic); and Publicly Owned Treatment Works (POTWs), EPA/833B-99/002. Annual reports shall be submitted to the Department within 30 days of the completion of the last test of each annual cycle.

## PART I

## Section A. Limitations and Monitoring Requirements

## 3. Additional Monitoring Requirements

As a condition of this permit, the permittee shall monitor the discharge from monitoring points 001A and 002A for the constituents listed below. This monitoring is an application requirement of 40 CFR 122.21(j), effective December 2, 1999. Testing shall be conducted in August 2009, May 2010, March 2011, and October 2011. Grab samples shall be taken for total mercury, available cyanide, total phenols, and parameters listed under Volatile Organic Compounds. For all other parameters, 24-hour composite samples shall be taken.

The results of such monitoring shall be submitted with the application for reissuance (see the cover page of this permit for the application due date). The permittee shall notify the Department within 14 days of completing the monitoring for each month specified above in accordance with Part II.C.5. Additional reporting requirements are specified in Part II.C.10. If, upon review of the analysis, it is determined that additional requirements are needed to protect the receiving waters in accordance with applicable water quality standards, the permit may then be modified by the Department in accordance with applicable laws and rules.

Hardness

calcium carbonate

Metals (Total Recoverable), Cyanide and Total Phenols (Quantification levels in parentheses)

antimony (1 µg/l)	arsenic (1 µg/l)	barium (5 µg/l)
beryllium (1 µg/l)	boron (20 µg/l)	cadmium (0.2 µg/l)
chromium (5 µg/l)	lead (1 µg/l)	nickel (5 µg/l)
selenium (1 µg/l)	silver (0.5 µg/l)	thallium (1 µg/l)
zinc (5 µg/l)		
total phenolic compounds		

Volatile Organic Compounds

acrolein	acrylonitrile	benzene
bromoform	carbon tetrachloride	chlorobenzene
chlorodibromomethane	chloroethane	2-chloroethylvinyl ether
chloroform	dichlorobromomethane	1,1-dichloroethane
1,2-dichloroethane	trans-1,2-dichloroethylene	1,1-dichloroethylene
1,2-dichloropropane	1,3-dichloropropylene	ethylbenzene
methyl bromide	methyl chloride	methylene chloride
1,1,2,2-tetrachloroethane	tetrachloroethylene	toluene
1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethylene
vinyl chloride		

Acid-Extractable Compounds

p-chloro-m-creso	2-chlorophenol	2,4-dichlorophenol
2,4-dimethylphenol	4,6-dinitro-o-cresol	2,4-dinitrophenol
2-nitrophenol	4-nitrophenol	pentachlorophenol
phenol	2,4,6-trichlorophenol	

## PART I

**Section A. Limitations and Monitoring Requirements**Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene
benzidine	benzo(a)anthracene	benzo(a)pyrene
3,4-benzofluoranthene	benzo(ghi)perylene	benzo(k)fluoranthene
bis(2-chloroethoxy)methane	bis(2-chloroethyl)ether	bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate	4-bromophenyl phenyl ether	butyl benzyl phthalate
2-chloronaphthalene	4-chlorophenyl phenyl ether	chrysene
di-n-butyl phthalate	di-n-octyl phthalate	dibenzo(a,h)anthracene
1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
3,3'-dichlorobenzidine	diethyl phthalate	dimethyl phthalate
2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine
fluoranthene	fluorene	hexachlorobenzene
hexachlorobutadiene	hexachlorocyclo-pentadiene	hexachloroethane
indeno(1,2,3-cd)pyrene	isophorone	naphthalene
nitrobenzene	n-nitrosodi-n-propylamine	n-nitrosodimethylamine
n-nitrosodiphenylamine	phenanthrene	pyrene
1,2,4-trichlorobenzene		

**4. Pollutant Minimization Program for Total Mercury**

The goal of the Pollutant Minimization Program is to maintain the effluent concentration of total mercury at or below 1.3 ng/l. The permittee shall continue to implement the Pollutant Minimization Program approved on July 2, 2004, and modifications thereto, to proceed toward the goal. The Pollutant Minimization Program includes the following:

- a. an annual review and semi-annual monitoring of potential sources of mercury entering the wastewater collection system;
- b. a program for quarterly monitoring of influent and periodic monitoring of sludge for mercury; and
- c. implementation of reasonable cost-effective control measures when sources of mercury are discovered. Factors to be considered include significance of sources, economic considerations, and technical and treatability considerations.

On or before March 31 of each year, the permittee shall submit a status report for the previous calendar year to the Department that includes 1) the monitoring results for the previous year, 2) an updated list of potential mercury sources, and 3) a summary of all actions taken to reduce or eliminate identified sources of mercury.

Any information generated as a result of the Pollutant Minimization Program set forth in this permit may be used to support a request to modify the approved program or to demonstrate that the Pollutant Minimization Program requirement has been completed satisfactorily.

A request for modification of the approved program and supporting documentation shall be submitted in writing to the Department for review and approval. The Department may approve modifications to the approved program (approval of a program modification does not require a permit modification), including a reduction in the frequency of the requirements under items a. & b. if the data indicate that the 12-month rolling average mercury concentration is less than 5 ng/l.

This permit may be modified in accordance with applicable laws and rules to include additional mercury conditions and/or limitations as necessary.

**PART I**

**Section A. Limitations and Monitoring Requirements**

**5. Dioxin/Furan Monitoring**

The permittee shall monitor annually for seventeen 2,3,7,8 substituted polychlorinated dibenzo-p-dioxin (PCDD) and polychlorinated dibenzofuran (PCDF) congeners. The effluent monitoring shall be conducted at monitoring point 002A in the months of August 2009, July 2010, May 2011, and October 2011. Parallel sampling shall also be conducted annually on the influent. Biosolids analyses shall also be conducted at the time the biosolids are removed from the treatment lagoons. If determined appropriate by the permittee, selected dischargers to the collection system shall be monitored as needed in each sampling round.

PCDD and PCDF effluent monitoring shall be accomplished by analysis of 24-hour composite samples which, at a minimum, shall be comprised of at least three discrete portions collected at approximately evenly spaced intervals during a 24-hour period. Grab samples may be used for sampling influent, sludge, and selected dischargers. PCDD and PCDF congener sampling, handling and analyses shall be conducted according to EPA Method 1613 unless an alternative method is approved by the Department. The following PCDD and PCDF congeners shall be measured at the quantification levels listed below unless higher levels are appropriate because of sample matrix interference. The quantification levels are listed in parts per quadrillion (ppq).

<u>PCDD Congeners</u>		<u>PCDF Congeners</u>	
2,3,7,8-TCDD	(10 ppq)	2,3,7,8-TCDF	(10 ppq)
1,2,3,7,8-PeCDD	(50 ppq)	1,2,3,7,8-PeCDF	(50 ppq)
1,2,3,4,7,8-HxCDD	(50 ppq)	2,3,4,7,8-PeCDF	(50 ppq)
1,2,3,6,7,8-HxCDD	(50 ppq)	1,2,3,4,7,8-HxCDF	(50 ppq)
1,2,3,7,8,9-HxCDD	(50 ppq)	1,2,3,6,7,8-HxCDF	(50 ppq)
1,2,3,4,6,7,8-HpCDD	(50 ppq)	2,3,4,6,7,8-HxCDF	(50 ppq)
OCDD	(100 ppq)	1,2,3,7,8,9-HxCDF	(50 ppq)
		1,2,3,4,6,7,8-HpCDF	(50 ppq)
		1,2,3,4,7,8,9-HpCDF	(50 ppq)
		OCDF	(100 ppq)

The analytical results of the samples specified above shall be summarized in a report submitted to the Department by December 1<sup>st</sup> for each year sampled. The annual report shall include any quantified congener measurements that are less than their respective quantification levels but are equal to or greater than their respective detection levels. The report shall also include the detection level for any congener not present at or above its respective detection level.

**6. Treatment Facility Monitoring and Reporting**

The permittee shall monitor the following treatment processes and report the data monthly to the Department.

- a. Raw sewage – flow and water quality data including biochemical oxygen demand, suspended solids, volatile suspended solids, total phosphorus, temperature, and ammonia nitrogen.
- b. Aerated Lagoons – dissolved oxygen, biochemical oxygen demand, suspended solids, volatile suspended solids, total phosphorus, and ammonia nitrogen.
- c. East and West Storage Lagoons – depth and dissolved oxygen.
- d. Irrigation Water – flow and water quality data including total phosphorus and ammonia nitrogen.
- e. Identifiable Irrigation Zones – inches applied.

## PART I

### Section A. Limitations and Monitoring Requirements

#### 7. Farm Management Report

The permittee shall submit an annual Farm Management Report that includes but not limited to the following.

- a. water irrigation rates;
- b. rainfall data;
- c. fertilizer application rates and methods;
- d. pesticide and herbicide application rates and methods;
- e. impact assessment of farming operations on both the groundwater quality and the quality of facility's discharge through outfalls 001 and 002.

The Farm Management Report shall be submitted to the Department on or before February 28 of each year.

#### 8. Untreated or Partially Treated Sewage Discharge Requirements

In accordance with Section 324.3112a of the Michigan Act, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, the Department, local health departments, a daily newspaper of general circulation in the county in which the permittee is located, and a daily newspaper of general circulation in the county or counties in which the municipalities whose waters may be affected by the discharge are located that the discharge is occurring.

The permittee shall also annually contact municipalities, including the superintendent of a public drinking water supply with potentially affected intakes, whose waters may be affected by the permittee's discharge of combined sewage, and if those municipalities wish to be notified in the same manner as specified above, the permittee shall provide such notification. Such notification shall also include a daily newspaper in the county of the affected municipality.

At the conclusion of the discharge, written notification shall be submitted in accordance with and on the "CSO/SSO Reporting Form" available via the internet at: [http://www.michigan.gov/deq/0,1607,7-135-3313\\_3682\\_3715---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3715---,00.html), or, alternatively for combined sewer overflow discharges, in accordance with notification procedures approved by the Department.

In addition, in accordance with Section 324.3112a of the Michigan Act, each time a discharge of untreated sewage or partially treated sewage occurs, the permittee shall test the affected waters for *Escherichia coli* to assess the risk to the public health as a result of the discharge and shall provide the test results to the affected local county health departments and to the Department. The testing shall be done at locations specified by each affected local county health department but shall not exceed 10 tests for each separate discharge event. The affected local county health department may waive this testing requirement, if it determines that such testing is not needed to assess the risk to the public health as a result of the discharge event. The results of this testing shall be submitted with the written notification required above, or, if the results are not yet available, submit them as soon as they become available. This testing is not required, if the testing has been waived by the local health department, or if the discharge(s) did not affect surface waters.

Permittees accepting sanitary or municipal sewage from other sewage collection systems are encouraged to notify the owners of those systems of the above reporting and testing requirements.

## PART I

### Section A. Limitations and Monitoring Requirements

#### 9. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address and telephone number of the new facility contact).

- a. The facility contact shall be (or a duly authorized representative of this person):
  - for a corporation, a principal executive officer of at least the level of vice president, or a designated representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the permit application or other NPDES form originates,
  - for a partnership, a general partner,
  - for a sole proprietorship, the proprietor, or
  - for a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager or other duly authorized employee.
- b. A person is a duly authorized representative only if:
  - the authorization is made in writing to the Department by a person described in paragraph a. of this section; and
  - the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

#### 10. Monthly Operating Reports

Part 41 of Act 451 of 1994 as amended, specifically Section 324.4106 and associated Rule 299.2953, requires that the permittee file with the Department, on forms prescribed by the Department, reports showing the effectiveness of the treatment facility operation and the quantity and quality of liquid wastes discharged into waters of the state.

Within thirty (30) days of the effective date of this permit the permittee shall submit to the Department a treatment facility monitoring program to meet this requirement. Upon approval by the Department the permittee shall implement the treatment facility monitoring program. The reporting forms and guidance are available on the DEQ web site at [http://www.michigan.gov/deq/0,1607,7-135-3313\\_44117---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_44117---,00.html). The permittee may use alternative operating forms if they are consistent with the approved monitoring program. These forms shall be maintained on site and shall be provided to the Department for review upon request. These treatment facility monitoring records shall be maintained for a minimum of three years.

### Section B. Schedule of Compliance

#### 1. Schedule of Compliance Not Required

This section (Section B: Schedule of Compliance) is not needed for this permit.

**PART I****Section C. Industrial Waste Pretreatment Program****1. Federal Industrial Pretreatment Program**

- a. The permittee shall implement the Federal Industrial Pretreatment Program approved on September 30, 1984, and any subsequent modifications approved up to the issuance of this permit. Approval of substantial program modifications after the issuance of this permit shall be incorporated into this permit by minor modification in accordance with 40 CFR 122.63.
- b. The permittee shall comply with Rules 323.2301 through 323.2317 of the Michigan Administrative Code (Part 23 Rules), the General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR Part 403), and the approved Federal Industrial Pretreatment Program.
- c. The permittee shall have the legal authority and necessary interjurisdictional agreements that provide the basis for the implementation and enforcement of the approved Federal Industrial Pretreatment Program throughout the service area. The legal authority and necessary interjurisdictional agreements shall include, at a minimum, the authority to carry out the activities specified in Rule 323.2306(a).
- d. The permittee shall develop procedures which describe, in sufficient detail, program commitments which enable implementation of the approved Federal Industrial Pretreatment Program, 40 CFR Part 403, and the Part 23 Rules in accordance with Rule 323.2306(c).
- e. The permittee shall establish an interjurisdictional agreement (or comparable document) with all tributary governmental jurisdictions. Each interjurisdictional agreement shall contain, at a minimum, the following:
  - 1) identification of the agency responsible for the implementation and enforcement of the approved Federal Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries; and
  - 2) the provision of the legal authority which provides the basis for the implementation and enforcement of the approved Federal Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries.
- f. The permittee shall prohibit discharges that:
  - 1) cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Michigan Act;
  - 2) restrict, in whole or in part, the permittee's management of biosolids;
  - 3) cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - 4) violate any of the general or specific prohibitions identified in Rule 323.2303(1) and (2);
  - 5) violate categorical standards identified in Rule 323.2311; and
  - 6) violate local limits established in accordance with Rule 323.2303(4).
- g. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user as identified in Rule 323.2302(cc).
- h. The permittee shall develop an enforcement response plan which describes, in sufficient detail, program commitments which will enable the enforcement of the approved Federal Industrial Pretreatment Program, 40 CFR Part 403, and the Part 23 Rules in accordance with Rule 323.2306(g).
- i. The Department may require modifications to the approved Federal Industrial Pretreatment Program which are necessary to ensure compliance with 40 CFR Part 403 and the Part 23 Rules in accordance with Rule 323.2309.

**PART I****Section C. Industrial Waste Pretreatment Program**

- j. The permittee shall not implement changes or modifications to the approved Federal Industrial Pretreatment Program without notification to the Department. Any substantial modification shall be subject to Department public noticing and approval in accordance with Rule 323.2309.
- k. The permittee shall maintain an adequate revenue structure and staffing level for effective implementation of the approved Federal Industrial Pretreatment Program.
- l. The permittee shall develop and maintain, for a minimum of three (3) years, all records and information necessary to determine nondomestic user compliance with 40 CFR Part 403, Part 23 Rules and the approved Federal Industrial Pretreatment Program. This period of retention shall be extended during the course of any unresolved enforcement action or litigation regarding a nondomestic user or when requested by the Department or the United States Environmental Protection Agency. All of the aforementioned records and information shall be made available upon request for inspection and copying by the Department and the United States Environmental Protection Agency.
- m. The permittee shall evaluate the approved Federal Industrial Pretreatment Program for compliance with the 40 CFR Part 403, Part 23 Rules and the prohibitions stated in item f. (above). Based upon this evaluation, the permittee shall propose to the Department all necessary changes or modifications to the approved Federal Industrial Pretreatment Program no later than the next Industrial Pretreatment Program Annual Report due date (see item o. below).
- n. The permittee shall develop and enforce local limits to implement the prohibitions listed in item f above. Local limits shall be based upon data representative of actual conditions demonstrated in a maximum allowable headworks loading analysis. An evaluation of whether the existing local limits need to be revised shall be submitted to the Department by August 1, 2009. The submittal shall provide a technical evaluation of the basis upon which this determination was made which includes information regarding the maximum allowable headworks loading, collection system protection criteria, and worker health and safety, based upon data collected since the last local limits review.

The following pollutants shall be evaluated:

- 1) Arsenic, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Silver, and Zinc;
  - 2) Pollutants that are subject to limits or monitoring in this permit;
  - 3) Pollutants that have an existing local limit; and,
  - 4) Other pollutants of concern which would reasonably be expected to be discharged or transported by truck or rail or otherwise introduced into the POTW.
- o. On or before April 1st of each year, the permittee shall submit to the Department, as required by Rule 323.2310(8), an Industrial Pretreatment Program Annual Report on the status of program implementation and enforcement activities. The reporting period shall begin on January 1st and end on December 31st. At a minimum, the Industrial Pretreatment Program Annual Report shall contain the following items:
    - 1) additions, deletions, and any other modifications to the permittee's previously submitted nondomestic user inventory (Rule 323.2306(c)(i));
    - 2) additions, deletions, and any other modifications to the permittee's approved Significant Industrial User List (Rule 323.2306(h));
    - 3) a listing of the names of Significant Industrial Users not inspected by the permittee at least once during the reporting period or at the frequency committed to in the approved Federal Industrial Pretreatment Program;

**PART I****Section C. Industrial Waste Pretreatment Program**

- 4) a listing of the names of Significant Industrial Users not sampled for all required pollutants by the permittee at least once during the reporting period or at the frequency committed to in the approved Federal Industrial Pretreatment Program;
- 5) a listing of the names of Significant Industrial Users without a permit at any time during the reporting period;
- 6) a listing of the names of nondomestic industrial users in significant noncompliance for each of the criteria as defined in Rule 323.2302(dd)(i)-(viii);
- 7) proof of publication of all nondomestic users in significant noncompliance in the largest daily newspaper in the permittee's area;
- 8) a summary of the enforcement activities by the permittee during the report period. This Summary shall include:
  - a) a listing of the names of nondomestic users which were the subject of an enforcement action;
  - b) the enforcement action taken and the date the action was taken; and
  - c) whether the nondomestic user returned to compliance by the end of the reporting period (include date nondomestic user returned to compliance).
- 9) a listing of the names of Significant Industrial Users who did not submit pretreatment reports in accordance with requirements specified in their permit during the reporting period;
- 10) a listing of the names of Significant Industrial Users who did not self-monitor in accordance with requirements specified in their permit during the reporting period;
- 11) a summary of results of all the sampling and analyses performed of the wastewater treatment plant's influent, effluent, and biosolids conducted in accordance with approved methods during the reporting period. The summary shall include the monthly average, daily maximum, quantification level, and number of samples analyzed for each pollutant. At a minimum, the results of analyses for all locally limited parameters for at least one monitoring event that tests influent, effluent and biosolids during the reporting period shall be submitted with each report, unless otherwise required by the Department. Sample collection shall be at intervals sufficient to provide pollutant removal rates, unless the pollutant is not measurable; and
- 12) any other relevant information as requested by the Department.

**PART I****Section D. Residuals Management Program****1. Residuals Management Program for Land Application of Biosolids**

A permittee seeking authorization to land apply bulk biosolids or prepare bulk biosolids for land application shall develop and submit a Residuals Management Program (RMP) to the Department for approval. Effective upon Department approval of the permittee's RMP, the permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules) which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids laws and Rules Information which is under the Laws & Rules banner in the center of the screen). The permittee's approved RMP, and any approved modifications thereto, are enforceable requirements of this permit. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with Part II.D.7. of this permit.

**a. RMP Approval and Implementation**

A permittee seeking approval of an RMP shall submit the RMP to the Department at least 180 days prior to the land application of biosolids. The permittee may utilize the RMP Electronic Form which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on RMP Electronic Form which is under the Downloads banner in the center of the screen) or obtain detailed requirements from the Department. The RMP shall become effective and shall be implemented by the permittee upon written approval by the Department.

**b. Annual Report**

On or before October 30 of each year, the permittee shall submit to the Department an annual report for the previous fiscal year of October 1 through September 30. At a minimum, the report shall contain:

1) a certification that current residuals management practices are in accordance with the approved RMP, or a proposal for modification to the approved RMP; and

2) a completed Biosolids Annual Report Form which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids Annual Report Form which is under the Downloads banner in the center of the screen) or from the Department.

**c. Modifications to the Approved RMP**

Prior to implementation of modifications to the RMP, the permittee shall submit proposed modifications to the Department for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Department may impose additional requirements and/or limitations to the approved RMP as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

**d. Recordkeeping**

Records required by the Part 24 Rules shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

## PART II

### Section A. Definitions

This list of definitions may include terms not applicable to this permit.

**Acute toxic unit (TU<sub>A</sub>)** means 100/LC<sub>50</sub> where the LC<sub>50</sub> is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

**Bioaccumulative chemical of concern (BCC)** means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

**Biosolids** are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

**Bulk biosolids** means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

**Chronic toxic unit (TU<sub>C</sub>)** means 100/MATC or 100/IC<sub>25</sub>, where the maximum acceptable toxicant concentration (MATC) and IC<sub>25</sub> are expressed as a percent effluent in the test medium.

**Class B Biosolids** refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

**Daily concentration** is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Daily loading** is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

**Department** means the Michigan Department of Environmental Quality.

**Detection Level** means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

**EC<sub>50</sub>** means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

## PART II

### Section A. Definitions

**Fecal coliform bacteria monthly** is the geometric mean of the samples collected in a calendar month (or 30 consecutive days). The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Fecal coliform bacteria 7-day** is the geometric mean of the samples collected in any 7-day period. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Flow Proportioned sample** is a composite sample with the sample volume proportional to the effluent flow.

**Grab sample** is a single sample taken at neither a set time nor flow.

**IC<sub>25</sub>** means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

**Interference** is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

**Land Application** means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

**LC<sub>50</sub>** means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

**Maximum acceptable toxicant concentration (MATC)** means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

**MGD** means million gallons per day.

**Monthly frequency of analysis** refers to a calendar month. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Monthly concentration** is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days) divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

## PART II

### Section A. Definitions

**Monthly loading** is the sum of the daily loadings of a parameter divided by the number of daily loadings determined in the reporting month (or 30 consecutive days). The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMRs.

**National Pretreatment Standards** are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

**No observed adverse effect level (NOAEL)** means the highest tested dose or concentration of a substance which results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

**Noncontact Cooling Water** is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

**Nondomestic user** is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

**Partially treated sewage** is any sewage, sewage and storm water, or sewage and wastewater, from domestic or industrial sources that is treated to a level less than that required by the permittee's National Pollutant Discharge Elimination System permit, or that is not treated to national secondary treatment standards for wastewater, including discharges to surface waters from retention treatment facilities.

**Pretreatment** is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

**POTW** is a publicly owned treatment works.

**Quantification level** means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

**Quarterly frequency of analysis** refers to a three month period, defined as January through March, April through June, July through September, and October through December. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Regional Administrator** is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

**Significant industrial user** is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

## PART II

### Section A. Definitions

**Significant Materials** Significant Materials means any material which could degrade or impair water quality, including but not limited to: raw materials; fuels; solvents, detergents, and plastic pellets; finished materials such as metallic products; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (see 40 CFR 372.65); any chemical the facility is required to report pursuant to Section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA); polluting materials as identified under the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code); Hazardous Wastes as defined in Part 111 of the Michigan Act; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

**Tier I value** means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

**Tier II value** means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

**Toxicity Reduction Evaluation (TRE)** means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

**Water Quality Standards** means the Part 4 Water Quality Standards promulgated pursuant to Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

**Weekly frequency of analysis** refers to a calendar week which begins on Sunday and ends on Saturday. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Yearly frequency of analysis** refers to a calendar year beginning on January 1 and ending on December 31. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**24-Hour Composite sample** is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

**3-Portion Composite sample** is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

**7-day concentration** is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**7-day loading** is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days in a reporting month. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

## PART II

### Section B. Monitoring Procedures

#### 1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

#### 2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants), unless specified otherwise in this permit. Requests to use test procedures not promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Chief of the Permits Section, Water Bureau, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773. The permittee may use such procedures upon approval.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

#### 3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

#### 4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

#### 5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Department.

## PART II

### Section C. Reporting Requirements

#### 1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Department within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

#### 2. Submittal Requirements for Self-Monitoring Data

Part 31 of Act 451 of 1994, as amended, specifically Section 324.3110(3) and Rule 323.2155(2) of Part 21 allows the Department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self Monitoring" the permittee shall submit self-monitoring data via the Michigan DEQ Electronic Environmental Discharge Monitoring Reporting (*e2-DMR*) system.

The permittee shall utilize the information provided on the *e2-Reporting* website @ <http://secure1.state.mi.us/e2rs/> to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the department no later than the **20<sup>th</sup> day of the month** following each month of the authorized discharge period(s).

#### 3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Water Bureau, Michigan Department of Environmental Quality. Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Department, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge.

#### 4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the Michigan Act or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

#### 5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

## PART II

### Section C. Reporting Requirements

#### 6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

- a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

#### 7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated on the first page of this permit, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

#### 8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset, shall notify the Department by telephone within 24-hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

## PART II

### Section C. Reporting Requirements

#### 9. Bypass Prohibition and Notification

- a. Bypass Prohibition - Bypass is prohibited unless:
  - 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
  - 3) the permittee submitted notices as required under 9.b. or 9.c. below.
- b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 9.a. above.
- c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated on the first page of this permit (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.
- e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. of this permit.
- f. Definitions
  - 1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
  - 2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

#### 10. Notification of Changes in Discharge

The permittee shall notify the Department, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application (see the first page of this permit for the date(s) the complete application was submitted). Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

## PART II

### Section C. Reporting Requirements

#### 11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Department by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

#### 12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

#### 13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

#### 14. Operations and Maintenance Manual

Part 41 of Act 451 of 1994, as amended, specifically Section 324.4104 and associated Rule 299.2957, allow the Department to require an Operations and Maintenance (O&M) manual for the wastewater treatment facility. An up-to-date copy of the O&M manual shall be kept at the wastewater treatment facility. Upon request a copy of the O&M manual shall be provided to the Department. The Department may review the manual in whole or in part at their discretion and require modifications to it if portions are determined to be inadequate.

At a minimum, the O&M manual should include the following information: permit standards, description and operation information for all equipment, staffing information, laboratory requirements, record keeping requirements, maintenance plan for equipment, emergency operating plan, safety program information and copies of all pertinent forms, as-built plans, and manufacturer's manuals.

Certification of the existence and accuracy of the operations and maintenance manual is required to be submitted to the Department at least sixty days prior to startup of a new wastewater treatment plant. Submittal of re-certifications will also be required sixty days prior to start up of any substantial improvements or modifications made at the wastewater treatment plant.

## PART II

### Section D. Management Responsibilities

#### 1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#### 2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the Michigan Act. Permittees authorized to discharge storm water shall have the storm water treatment and/or control measures under direct supervision of a storm water operator certified by the Department, as required by Section 3110 of the Michigan Act.

#### 3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

#### 4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

#### 5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

#### 6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the Michigan Act.

## PART II

### Section D. Management Responsibilities

#### 7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

#### 8. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

#### 9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

## PART II

### Section E. Activities Not Authorized by This Permit

#### 1. Facility Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Approval for such construction for a POTW must be by permit issued under Part 41 of the Michigan Act. Approval for such construction for a mobile home park, campground or marina shall be from the Water Bureau, Michigan Department of Environmental Quality. Approval for such construction for a hospital, nursing home or extended care facility shall be from the Division of Health Facilities and Services, Michigan Department of Consumer and Industry Services upon request.

#### 2. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

#### 3. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

#### 4. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

#### 5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.

## PART III

### Section A. Groundwater Discharge

#### 1. Groundwater Discharge Authorization

The permittee is authorized to discharge from its wastewater treatment facility to the groundwaters of the state in accordance with the conditions specified below. This authorization is granted pursuant only to the Michigan Act, and not pursuant to Michigan's delegated authority to issue NPDES permits under the federal Clean Water Act. At such time Department issues a state groundwater discharge permit or other administrative document authorizing discharge or requiring groundwater monitoring, Part III of this permit will be rescinded. In the interim, all submittals required under this part should be directed to the Water Bureau, Groundwater Permits Unit, P.O. Box 30273, Lansing, Michigan 48909.

#### 2. Groundwater Discharge Control

- a. The groundwater in the vicinity of the wastewater treatment facility shall be controlled by the permittee to comply with Rule 324.3109 of the Michigan Administrative Code (Part 31 Rules), Water Resources Protection, Natural Resources and Environmental Protection Act, 1994 PA 451, and the Part 22 Rules.
- b. The operation of the Muskegon County Wastewater Management System shall not degrade residential wells in the vicinity of the site.

#### 3. Groundwater Monitoring and Wastewater Application to Land

- a. Hydrogeological Report

The permittee shall develop an approvable post irrigation season analysis of groundwater data obtained under the groundwater monitoring program specified in Part III, Section A.3, which relates the irrigation management of the system to the effectiveness of groundwater control for prevention of off-site impact consistent with the design intent of the system. Such report shall be submitted to the Water Bureau, Groundwater Permits Unit on or before January 31 of each year. As a minimum pH, chlorides, specific conductance and COD values shall be included in the report.

- b. Application of Wastewater to Land

The permittee shall employ methods of applying wastewater to the land which result in uniform distribution of wastewater on the soil surface area.

- c. Monitoring of Groundwater

- 1) Keywell Monitoring Program

During the period beginning on the date of issuance and lasting until the date of expiration, the permittee shall monitor the groundwater in the vicinity of the wastewater treatment facility as follows:

- a) The following existing groundwater monitoring wells shall be monitored quarterly for static water elevation, chloride, specific conductance, pH, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total phosphorus and annually for sulfides, total hardness, alkalinity, methylene blue active substances and chemical oxygen demand : 7s, 7d, 8s, 8d, 9s, 9d, 10s, 10d, 16b-1, 16b-2, 16b-3, 17b-1, 17b-2.

**PART III**

**Section A. Management Requirements**

b) The following existing groundwater monitoring wells shall be monitored semi-annually for static water elevation, chloride, specific conductance, pH, ammonia nitrogen, nitrate-nitrogen, nitrite-nitrogen, total phosphorus, and annually for sulfides, total hardness, alkalinity, methylene blue active substances and chemical oxygen demand:

- |               |        |               |        |               |        |       |               |  |  |
|---------------|--------|---------------|--------|---------------|--------|-------|---------------|--|--|
| 1a,           | 1b-1   | 1b-2,         | 1b-3,  | 1c-1,         | 1c-2,  | 1c-3  |               |  |  |
| 3a,           | 3b-1,  | 3b-2,         | 3b-3,  | 3c-1,         | 3c-2,  | 3c-3  |               |  |  |
| 4a,           | 4b-1,  | 4b-2,         | 4b-3,  | 4c-1,         | 4c-2,  | 4c-3  |               |  |  |
| 6a,           | 6b-1,  | 6b-2,         | 6b-3,  | 6c-1,         | 6c-2,  | 6c-3  |               |  |  |
| 11a,          | 11b-1, | 11b-2,        | 11b-3, | 11c-1,        | 11c-2, | 11c-3 |               |  |  |
| 15a,          | 15b-1, | 15b-2,        | 15b-3, | 15c-1,        | 15c-2, | 15c-3 |               |  |  |
| 21a,          | 21b-1, | 21b-2,        | 21b-3, | 21c-1,        | 21c-2, | 21c-3 |               |  |  |
| 23a,          | 23b-1, | 23b-2,        | 23b-3, | 23c-1,        | 23c-2, | 23c-3 |               |  |  |
| 25a,          | 25b-1, | 25b-2,        | 25b-3, | 25c-1,        | 25c-2, | 25c-3 |               |  |  |
|               |        |               |        |               | 34c-2, | 34c-3 |               |  |  |
| L-1, L-3      |        | M-1, M-2, M-3 |        | N-1, N-2, N-3 |        |       | O-1, O-2, O-3 |  |  |
| Q-1, Q-2      |        | R-1, R-2, R-3 |        | T-1, T-2, T-3 |        |       |               |  |  |
| Y-1, Y-2, Y-3 |        |               |        |               |        |       |               |  |  |
| Z-1, Z-2, Z-3 |        |               |        |               |        |       |               |  |  |

c) The following existing groundwater monitoring wells shall be monitored annually for static water elevation, chloride, specific conductance, pH, total hardness, alkalinity, ammonia nitrogen, nitrite nitrogen, total phosphorus, methylene blue active substances, chemical oxygen demand, and sulfides:

- |      |        |        |        |        |        |       |  |  |  |
|------|--------|--------|--------|--------|--------|-------|--|--|--|
| 2a,  | 2b-1,  | 2b-2,  | 2b-3,  | 2c-1,  | 2c-2,  | 2c-3  |  |  |  |
| 5a,  | 5b-1,  | 5b-2,  | 5b-3,  | 5c-1,  | 5c-2,  | 5c-3  |  |  |  |
| 17a, |        |        | 17b-3, | 17c-1, | 17c-2, | 17c-3 |  |  |  |
| 32a, |        |        |        |        |        |       |  |  |  |
| 33a, | 33b-1, | 33b-2, | 33b-3, | 33c-1, | 33c-2, | 33c-3 |  |  |  |

d) The following existing groundwater monitoring wells shall be monitored annually for static water elevation, chloride, specific conductance, pH, total hardness, alkalinity, ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, total phosphorus, methylene blue active substances, chemical oxygen demand, and sulfides:

- |     |       |       |       |       |       |       |        |        |        |
|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 7a  | 7b-1  | 7b-2  | 7b-3  | 7c-1  | 7c-2  | 7c-3  |        |        |        |
| 8a  | 8b-1  | 8b-2  | 8b-3  | 8c-1  | 8c-2  | 8c-3  |        |        |        |
| 9a  | 9b-1  | 9b-2  | 9b-3  | 9c-1  | 9c-2  | 9c-3  |        |        |        |
| 10a | 10b-1 | 10b-2 | 10b-3 |       |       |       |        |        |        |
| 12a | 12b-1 | 12b-2 | 12b-3 | 12c-1 | 12c-2 | 12c-3 | 12Ac-1 | 12Ac-2 | 12Ac-3 |
| 13a | 13b-1 | 13b-2 | 13b-3 | 13c-1 | 13c-2 | 13c-3 | 13Ac-1 | 13Ac-2 | 13Ac-3 |
| 14a | 14b-1 | 14b-2 | 14b-3 | 14c-1 | 14c-2 | 14c-3 |        |        |        |
| 16a |       |       |       | 16c-1 | 16c-2 | 16c-3 |        |        |        |
| 18a | 18b-1 | 18b-2 | 18b-3 | 18c-1 | 18c-2 | 18c-3 |        |        |        |
| 19a | 19b-1 | 19b-2 | 19b-3 | 19c-1 | 19c-2 | 19c-3 |        |        |        |
| 20a | 20b-1 | 20b-2 | 20b-3 | 20c-1 | 20c-2 | 20c-3 |        |        |        |
| 22a | 22b-1 | 22b-2 | 22b-3 | 22c-1 |       | 22c-3 |        |        |        |
| 24a | 24b-1 |       | 24b-3 | 24c-1 | 24c-2 | 24c-3 |        |        |        |
| 26a | 26b-1 | 26b-2 | 26b-3 | 26c-1 | 26c-2 | 26c-3 |        |        |        |
|     |       |       |       | 27c-1 |       | 27c-3 |        |        |        |
|     |       |       |       | 28c-1 | 28c-2 | 28c-3 |        |        |        |
|     |       |       |       | 29c-1 | 29c-2 | 29c-3 |        |        |        |
|     |       |       |       | 30c-1 | 30c-2 | 30c-3 |        |        |        |

- |    |    |    |    |
|----|----|----|----|
| 2s | 2d | 4s | 4d |
|----|----|----|----|

**PART III**

**Section A. Management Requirements**

2) Other Monitoring Programs

The groundwater monitoring program required above may be modified if a description of this modification is submitted by permittee to the Groundwater Permits Unit of the Water Bureau and their approval is granted.

3) Groundwater Monitoring for Organics

The following monitoring points and groundwater monitoring wells shall be sampled every May and November. Analysis, using gas chromatography/mass spectrometry scans shall be conducted for volatile, base neutral extractable, and extractable compounds accepted for or generated by treatment. Results of sampling and analysis for each six months shall be submitted by the end of the following month, specifically June 30 and December 31.

<u>LOCATION</u>	<u>SAMPLE TYPE</u>
Monitoring Well 10s0, 10d	Grab
Monitoring Well 16b-1, 16b-2, 16b-3	Grab
Monitoring Well 34c-2	Grab
Monitoring Well 17b-1, 17b-2	Grab
Monitoring Well 1c-2	Grab

4) Groundwater Contamination

If it is determined by the Department that existing or potential potable water supplies (or any usable aquifer off the wastewater treatment facility site) will be or has been degraded by operation of the wastewater collection and treatment system, the permittee shall take appropriate measures to protect such water supplies. If the water supplies cannot be protected, then, in addition to other mitigative measures as may be required by the Department, the permittee shall provide forthwith an alternative source of water approved by the Groundwater Permits Unit, Water Bureau, Michigan Department of Environmental Quality.

5) Sample Collection from Monitoring Wells

- a) The static water elevation shall be determined in all the monitoring wells of a cluster prior to sampling water from any monitoring well in the cluster.
- b) In wells which can be pumped, water shall be exhausted continuously for 10 minutes (a minimum of 3 well case volumes) prior to sample collection. Wells located in low permeability soils may have to be completely exhausted and allowed to refill before sample collection. Wells of depths that cannot be pumped shall be hand bailed at least 3 times before sample collection.
- c) Pumping equipment shall be thoroughly rinsed before use in each monitoring well.
- d) Water pumped from each monitoring well should be discharged to the ground surface away from the wells to avoid recycling of flow.
- e) Samples must be collected, stored, and transported to the laboratory in a manner consistent with Part II, Section A-3.

6) Static Water Elevation Measurement

- a) Water levels shall be determined by methods giving precision to 1/8" or 0.01'. (example: Wetted tape method.)
- b) Measurement shall be made from the top of the casing with the elevation from all casings in the monitoring well system related to a permanent reference point using United States Geology Survey datum.
- c) All wells shall be securely capped when not in use.

**PART III**

**Section A. Management Requirements**

- d) When the static water elevation at a particular well is below that which is measurable, the well should be reported to be dry.

7) Maintenance of the Groundwater Monitoring System

The permittee shall maintain the integrity of the groundwater monitoring system including replacement and surveying of key wells no later than 30 days (90 days during the winter months) following discovery of such need. New top of casing elevations shall be reported on the first month following repairs. Non key wells shall be repaired so that well monitoring requirement will be met.