

PERMIT NO. MI0027391

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY



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

In compliance with the provisions of the Federal Water Pollution Control Act (33 U.S.C. 1251 *et seq.*, as amended; the "Federal Act"); Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Part 41, Sewerage Systems, of the NREPA; and Michigan Executive Order 2011-1,

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

698 N. Maple Island Road
Muskegon, Michigan 49442

designated as **Muskegon Co WWMS Metro WWTP**

to the receiving water named the Muskegon River 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 July 24, 2012.

This permit takes effect on September 1, 2015. 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, 2012.

This permit and the authorization to discharge shall expire at midnight, **October 1, 2017**. 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 of Environmental Quality (Department) by **April 4, 2017**.

Issued August 12, 2015

Original Permit Signed by Christine Alexander for
Philip Argiroff, Chief
Permits Section
Water Resources Division

PERMIT FEE REQUIREMENTS

In accordance with Section 324.3120 of the NREPA, 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.

Annual Permit Fee Classification: Municipal Major, 10 MGD to less than 50 MGD (IP)

In accordance with Section 324.3132 of the NREPA, 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.

In accordance with Section 324.3122 of the NREPA, the permittee shall make payment of an annual permit fee to the Department for each December 15th the permit is in effect regardless of occurrence of discharge of wastewater to the groundwaters of the state. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by March 1st for notices mailed by January 15th. The fee is due no later than 45 days after receiving the notice for notices mailed after January 15th.

CONTACT INFORMATION

Unless specified otherwise, all contact with the Department required by this permit shall be made to the Grand Rapids District Supervisor of the Water Resources Division. The Grand Rapids District Office is located at the State Office Building, Fifth Floor, 350 Ottawa N.W., 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 Michigan Administrative Hearing System within the Michigan Department of Licensing and Regulatory Affairs, c/o the Michigan Department of Environmental Quality, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Licensing and Regulatory Affairs 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>Monitoring Frequency</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 ₅)										
Oct. 1 – Nov. 30	6,500	9,700	---	lbs/day	18	---	27	mg/l	Weekly	24-Hr Composite
Dec. 1 – Apr. 30	9,000	14,000	---	lbs/day	25	40	---	mg/l	Weekly	24-Hr Composite
May 1 - 31	3,900	6,100	---	lbs/day	11	---	17	mg/l	Weekly	24-Hr Composite
June 1 – Sept. 30	3,200	4,700	---	lbs/day	9.0	---	13	mg/l	Weekly	24-Hr Composite
Total Suspended Solids										
	5,400	9,000	---	lbs/day	15	25	---	mg/l	3xWeekly	24-Hr Composite
Ammonia Nitrogen (as N)										
Oct. 1 – Nov. 30	---	3,900	---	lbs/day	---	---	11	mg/l	3xWeekly	24-Hr Composite
Dec. 1 – Apr. 30	---	(report)	---	lbs/day	---	---	(report)	mg/l	3xWeekly	24-Hr Composite
May 1 - 31	---	3,400	---	lbs/day	---	---	9.5	mg/l	3xWeekly	24-Hr Composite
June 1 – Sept. 30	180	720	---	lbs/day	0.5	---	2.0	mg/l	3xWeekly	24-Hr Composite
Total Phosphorus (as P)										
May 1 – Oct. 31	1,000	---	---	lbs/month	0.09	---	---	mg/l	3xWeekly	24-Hr Composite
Nov. 1 - 30	2,200	---	---	lbs/month	0.2	---	---	mg/l	3xWeekly	24-Hr Composite
Dec. 1 – Mar. 31	1,500	---	---	lbs/month	0.2	---	---	mg/l	3xWeekly	24-Hr Composite
April 1 - 30	2,200	---	---	lbs/month	0.2	---	---	mg/l	3xWeekly	24-Hr Composite
Fecal Coliform Bacteria	---	---	---	---	200	400	---	cts/100 ml	5xWeekly	Grab
Whole Effluent Toxicity, see Part I.A.1.e.										
Acute Toxicity	---	---	---	---	---	---	(report)	TU _A	Annual	24-Hr Composite
Chronic Toxicity	---	---	---	---	(report)	---	---	TU _C	Annual	24-Hr Composite
Total Mercury										
– Corrected	(report)	---	---	lbs/day	(report)	---	---	ng/l	Monthly	Calculation
– Uncorrected	(report)	---	---	lbs/day	(report)	---	---	ng/l	Monthly	Grab
– Field Duplicate	---	---	---	---	(report)	---	---	ng/l	Monthly	Grab
– Field Blank	---	---	---	---	(report)	---	---	ng/l	Monthly	Preparation
– Laboratory Method Blank	---	---	---	---	(report)	---	---	ng/l	Monthly	Preparation
	<u>12-Month Rolling Average</u>				<u>12-Month Rolling Average</u>					
Total Mercury	0.003	---	---	lbs/day	7.0	---	---	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>Monitoring Frequency</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.	5xWeekly	Grab
Dissolved Oxygen										
Oct. 1 – Apr. 30	---	---	---	---	4.0	---	---	mg/l	5xWeekly	Grab
May 1 – May 31	---	---	---	---	5.0	---	---	mg/l	5xWeekly	Grab
June 1 – Sept. 30	---	---	---	---	5.5	---	---	mg/l	5xWeekly	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 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. **Final Effluent Limitation for Total Mercury**
The final limit for total mercury is the Discharge Specific 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 or equal to 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.3.

After a minimum of 12 monthly data points have been collected, the permittee may request a reduction in the monitoring frequency for total mercury. 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.

- d. **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.

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The use of clean technique sampling procedures is required unless the permittee can demonstrate to the Department that an alternative sampling procedure is representative of the discharge. 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.

In order to demonstrate compliance with EPA Method 1631E and EPA Method 1669, the permittee shall report, on the daily sheet, the analytical results of all field blanks and field duplicates collected in conjunction with each sampling event, as well as laboratory method blanks when used for blank correction. The permittee shall collect at least one (1) field blank and at least one (1) field duplicate per sampling event. If more than ten (10) samples are collected during a sampling event, the permittee shall collect at least one (1) additional field blank AND field duplicate for every ten (10) samples collected. Only field blanks or laboratory method blanks may be used to calculate a concentration lower than the actual sample analytical results (i.e. a blank correction). Only one (1) blank (field OR laboratory method) may be used for blank correction of a given sample result, and only if the blank meets the quality control acceptance criteria. If blank correction is not performed on a given sample analytical result, the permittee shall report under 'Total Mercury – Corrected' the same value reported under 'Total Mercury – Uncorrected.' The field duplicate is for quality control purposes only; its analytical result shall not be averaged with the sample result.

e. 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_A) and chronic toxic unit value (TU_C) 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_A value and monthly average TU_C 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 two years of toxicity testing and upon approval from the Department, the monitoring frequency may be reduced if the test data indicate that the toxicity requirements of Rule 323.1219 of the Michigan Administrative Code are consistently being met. After one (1) year of toxicity testing and upon approval from 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 the validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

The Department will review the toxicity data submitted by the permittee to determine if the acute and chronic toxicity requirements of Rule 323.1219 are being satisfied.

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1) If the data indicate persistent exceedance of the acute or chronic toxicity requirements of Rule 323.1219, upon written notification by the Department, the following conditions apply. Within 90 days of the above 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 acceptable levels ($\leq 1.0 TU_A$ and $\leq 3.9 TU_C$) within three (3) years of notification. The following documents are available as guidance to reduce toxicity to acceptable levels: Phase I, EPA/600/6-91/003 (acute) and EPA/600/6-91/005F (chronic); 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. The TRE shall include quarterly chronic toxicity tests of the discharge from Monitoring Point 001A for the duration of the TRE. The tests shall be conducted and reported as specified above. Upon approval from 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. Annual progress reports shall be submitted to the Department within 30 days of the completion of the last test of each annual cycle.

2) This permit may be modified in accordance with applicable laws and rules to include additional whole effluent toxicity control requirements as necessary.

2. Additional Monitoring Requirements

As a condition of this permit, the permittee shall monitor the discharge from Monitoring Point 001A 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 October 2015, March 2016, May 2016, and August 2016. Grab samples shall be taken for 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.11. 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)	available cyanide (2 µg/l) using Method OIA – 1677	
barium (5 µg/l)	beryllium (1 µg/l)	boron (20 µg/l)	cadmium (0.2 µg/l)
chromium (5 µg/l)	copper (1 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

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Section A. Limitations and Monitoring RequirementsAcid-Extractable Compounds

p-chloro-m-cresol	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	

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		

3. 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:

- an annual review and semi-annual monitoring of potential sources of mercury entering the wastewater collection system;
- a program for quarterly monitoring of influent and periodic monitoring of sludge for mercury; and
- 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.

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

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Section A. Limitations and Monitoring Requirements

4. 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 001A in the months of October 2015, March 2016, May 2016, and August 2016. 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 of 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.

5. 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.

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Section A. Limitations and Monitoring Requirements

6. 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.

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

7. Untreated or Partially Treated Sewage Discharge Reporting and Testing Requirements

In accordance with Section 324.3112a of the NREPA, 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 "Report of Discharge Form" available via the internet at: <http://www.deq.state.mi.us/csosso/>, 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 NREPA, 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.

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Section A. Limitations and Monitoring Requirements

8. 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.

9. 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.

Since this permit includes modifications to the monitoring requirements in the previously-issued permit, the previously approved treatment facility monitoring program shall be revised. Within thirty (30) days of the effective date of this permit, the permittee shall submit to the Department a revised treatment facility monitoring program to meet this requirement. Upon approval by the Department the permittee shall implement the revised 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. 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.

10. Asset Management

The permittee shall at all times properly operate and maintain all facilities (i.e., the sewer system and treatment works as defined in Part 41 of the NREPA), and control systems installed or used by the permittee to operate the sewer system and treatment works and achieve and maintain compliance with the conditions of this permit (also see Part II.D.3 of this permit). The requirements of an Asset Management Program function to achieve the goals of effective performance, adequate funding, and adequate operator staffing and training. Asset management is a planning process for ensuring that optimum value is gained for each asset and that financial resources are available to rehabilitate and replace those assets when necessary. Asset management is centered on a framework of five (5) core elements: the current state of the assets; the required sustainable level of service; the assets critical to sustained performance; the minimum life-cycle costs; and the best long-term funding strategy.

PART I

Section A. Limitations and Monitoring Requirements

a. Asset Management Program Requirements

On or before December 1, 2015, the permittee shall submit to the Department an Asset Management Plan for review and approval. An approvable Asset Management Plan shall contain a schedule for the development and implementation of an Asset Management Program that meets the requirements outlined below in 1) – 4). A copy of any Asset Management Program requirements already completed by the permittee should be submitted as part of the Asset Management Plan. Upon approval by the Department the permittee shall implement the Asset Management Plan. (The permittee may choose to include the Operation and Maintenance Manual required under Part II.C.14. of this permit as part of their Asset Management Program).

1) *Maintenance Staff.* The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. The level of staffing needed shall be determined by taking into account the work involved in operating the sewer system and treatment works, planning for and conducting maintenance, and complying with this permit.

2) *Collection System Map.* The permittee shall complete a map of the sewer collection system it owns and operates. The map shall be of sufficient detail and at a scale to allow easy interpretation. The collection system information shown on the map shall be based on current conditions and shall be kept up-to-date and available for review by the Department. **Note: Items below referencing combined sewer systems are not applicable to separate sewer systems.** Such map(s) shall include but not be limited to the following:

- a) all sanitary sewer lines and related manholes;
- b) all combined sewer lines, related manholes, catch basins and CSO regulators;
- c) all known or suspected connections between the sanitary sewer or combined sewer and storm drain systems;
- d) all outfalls, including the treatment plant outfall(s), combined sewer treatment facility outfalls, untreated CSOs, and any known SSOs;
- e) all pump stations and force mains;
- f) the wastewater treatment facility(ies), including all treatment processes;
- g) all surface waters (labeled);
- h) other major appurtenances such as inverted siphons and air release valves;
- i) a numbering system which uniquely identifies manholes, catch basins, overflow points, regulators and outfalls;
- j) the scale and a north arrow;
- k) the pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow; and
- l) the manhole interior material, rim elevation (optional), and invert elevations.

3) *Inventory and assessment of fixed assets.* The permittee shall complete an inventory and assessment of operations-related fixed assets. Fixed assets are assets that are normally stationary (e.g., pumps, blowers, and buildings). The inventory and assessment shall be based on current conditions and shall be kept up-to-date and available for review by the Department.

PART I**Section A. Limitations and Monitoring Requirements**

- a) The fixed asset inventory shall include the following:
 - (1) a brief description of the fixed asset, its design capacity (e.g., pump: 120 gallons per minute), its level of redundancy, and its tag number if applicable;
 - (2) the location of the fixed asset;
 - (3) the year the fixed asset was installed;
 - (4) the present condition of the fixed asset (e.g., excellent, good, fair, poor);
 - (5) the depreciated value of the fixed asset in dollars for year specified in accordance with approved schedules; and
 - (6) the current fixed asset (replacement) cost in dollars for year specified in accordance with approved schedules;
- b) The fixed asset assessment shall include a "Business Risk Evaluation" that combines the probability of failure of the fixed asset and the criticality of the fixed asset, as follows:
 - (1) Rate the probability of failure of the fixed asset on a scale of 1-5 (low to high) using criteria such as maintenance history, failure history, and remaining percentage of useful life (or years remaining);
 - (2) Rate the criticality of the fixed asset on a scale of 1-5 (low to high) based on the consequence of failure versus the desired level of service for the facility; and
 - (3) Compute the Business Risk Factor of the fixed asset by multiplying the failure rating from (1) by the criticality rating from (2).
- 4) *Operation, Maintenance & Replacement (OM&R) Budget and Rate Sufficiency for the Sewer System and Treatment Works.* The permittee shall complete an assessment of its user rates and replacement fund, including the following:
 - a) beginning and end dates of fiscal year;
 - b) name of the department, committee, board, or other organization that sets rates for the operation of the sewer system and treatment works;
 - c) amount in the permittee's replacement fund in dollars for year specified in accordance with approved schedules;
 - d) replacement fund of all assets with a useful life of 20 years or less;
 - e) expenditures for maintenance, corrective action and capital improvement taken during the fiscal year;
 - f) OM&R budget for the fiscal year; and
 - g) rate calculation demonstrating sufficient revenues to cover OM&R expenses. If the rate calculation shows there are insufficient revenues to cover OM&R expenses, the permittee shall document, within three (3) fiscal years after submittal of the Asset Management Plan, that there is at least one rate adjustment that reduces the revenue gap by at least 10 percent. The ultimate goal of the Asset Management Program is to ensure sufficient revenues to cover OM&R expenses.

PART I

Section A. Limitations and Monitoring Requirements

b. Reporting

The permittee shall develop a written report that summarizes asset management activities completed during the previous year and planned for the upcoming year. The written report shall be submitted to the Department on or before July 30 of each year. The written report shall include:

- 1) a description of the staffing levels maintained during the year;
- 2) a description of inspections and maintenance activities conducted and corrective actions taken during the previous year;
- 3) expenditures for collection system maintenance activities, treatment works maintenance activities, corrective actions, and capital improvement during the previous year;
- 4) a summary of assets/areas identified for inspection/action (including capital improvement) in the upcoming year based on the five (5) core elements and the Business Risk Factors;
- 5) a maintenance budget and capital improvement budget for the upcoming year that take into account implementation of an effective Asset Management Program that meets the five (5) core elements;
- 6) an updated asset inventory based on the original submission; and
- 7) an updated OM&R budget with an updated rate schedule that includes the amount of insufficient revenues, if any.

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 NREPA;
 - 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).

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

- 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.
- 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 June 1, 2016. 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 1 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));

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

- 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;
- 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 (see Part I.D.1.e) 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 (see Part I.D.1.e) 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 an annual report to the Biosolids Program, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, MI 48909-7958 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 (see Part I.D.1.e.) 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.

e. Contact Information

RMP related submittals to the Department shall be to the Grand Rapids District Supervisor of the Water Resources Division. The Grand Rapids District Office is located at the State Office Building, Fifth Floor, 350 Ottawa N.W., Unit 10, Grand Rapids, Michigan 49503-2341, Telephone: 616-356-0500, Fax: 616-356-0202.

PART II

Part II may include terms and /or conditions not applicable to discharges covered under this permit.

Section A. Definitions

Acute toxic unit (TU_A) means $100/LC_{50}$ where the LC_{50} 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.

Annual monitoring frequency 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 shall be reported for that period if a discharge occurs during that period.

Authorized public agency means a state, local, or county agency that is designated pursuant to the provisions of section 9110 of Part 91 of the NREPA to implement soil erosion and sedimentation control requirements with regard to construction activities undertaken by that agency.

Best management practices (BMPs) means structural devices or nonstructural practices that are designed to prevent pollutants from entering into storm water, to direct the flow of storm water, or to treat polluted storm water.

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.

Certificate of Coverage (COC) is a document, issued by the Department, which authorizes a discharge under a general permit.

Chronic toxic unit (TU_C) means $100/MATC$ or $100/IC_{25}$, where the maximum acceptable toxicant concentration (MATC) and IC_{25} 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.

Combined sewer system is a sewer system in which storm water runoff is combined with sanitary wastes.

PART II

Section A. Definitions

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.

Daily monitoring frequency refers to a 24-hour day. When required by this permit, an analytical result, reading, value or observation shall be reported for that period if a discharge occurs during that period.

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.

Discharge means the addition of any waste, waste effluent, wastewater, pollutant, or any combination thereof to any surface water of the state.

Discharge point is the location where the point source discharge is directed to surface waters of the state or to a separate storm sewer. It includes the location of all point source discharges where storm water exits the facility, including *outfalls* which discharge directly to surface waters of the state, and *points of discharge* which discharge directly into separate storm sewer systems.

EC₅₀ 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.

Fecal coliform bacteria monthly

FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – Fecal coliform bacteria monthly is the geometric mean of all daily concentrations determined during a discharge event. Days on which no daily concentration is determined shall not be used to determine the calculated monthly value. 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 DMR. If the period in which the discharge event occurred was partially in each of two months, the calculated monthly value shall be reported on the DMR of the month in which the last day of discharge occurred.

FOR ALL OTHER DISCHARGES – Fecal coliform bacteria monthly is the geometric mean of all daily concentrations determined during a reporting month. Days on which no daily concentration is determined shall not be used to determine the calculated monthly value. 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 DMR.

PART II

Section A. Definitions

Fecal coliform bacteria 7-day

FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – Fecal coliform bacteria 7-day is the geometric mean of the daily concentrations determined during any 7 consecutive days of discharge during a discharge event. If the number of daily concentrations determined during the discharge event is less than 7 days, the number of actual daily concentrations determined shall be used for the calculation. Days on which no daily concentration is determined shall not be used to determine the value. 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 geometric mean value for the month in the “MAXIMUM” column under “QUALITY OR CONCENTRATION” on the DMRs. If the 7-day period was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

FOR ALL OTHER DISCHARGES – Fecal coliform bacteria 7-day is the geometric mean of the daily concentrations determined during any 7 consecutive days in a reporting month. If the number of daily concentrations determined is less than 7, the actual number of daily concentrations determined shall be used for the calculation. Days on which no daily concentration is determined shall not be used to determine the value. 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 geometric mean for the month in the “MAXIMUM” column under “QUALITY OR CONCENTRATION” on the DMRs. The first calculation shall be made on day 7 of the reporting month, and the last calculation shall be made on the last day of the reporting month.

Flow-proportioned sample is a composite sample with the sample volume proportional to the effluent flow.

General permit means a National Pollutant Discharge Elimination System permit issued authorizing a category of similar discharges.

Geometric mean is the average of the logarithmic values of a base 10 data set, converted back to a base 10 number.

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

IC₂₅ means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

Illicit connection means a physical connection to a municipal separate storm sewer system that primarily conveys non-storm water discharges other than uncontaminated groundwater into the storm sewer; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections.

Illicit discharge means any discharge to, or seepage into, a municipal separate storm sewer system that is not composed entirely of storm water or uncontaminated groundwater. Illicit discharges include non-storm water discharges through pipes or other physical connections; dumping of motor vehicle fluids, household hazardous wastes, domestic animal wastes, or litter; collection and intentional dumping of grass clippings or leaf litter; or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-storm water waste directly into a separate storm sewer.

Individual permit means a site-specific NPDES permit.

Inlet means a catch basin, roof drain, conduit, drain tile, retention pond riser pipe, sump pump, or other point where storm water or wastewater enters into a closed conveyance system prior to discharge off site or into waters of the state.

PART II

Section A. Definitions

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.

LC₅₀ 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.

Maximum extent practicable means implementation of best management practices by a public body to comply with an approved storm water management program as required by a national permit for a municipal separate storm sewer system, in a manner that is environmentally beneficial, technically feasible, and within the public body's legal authority.

MGD means million gallons per day.

Monthly concentration is the sum of the daily concentrations determined during a reporting period divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMR. If the seven day period was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred.

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.

Monthly loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during a reporting period. The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMR. If the seven day period was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred..

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

Municipal separate storm sewer means a conveyance or system of conveyances designed or used for collecting or conveying storm water which is not a combined sewer and which is not part of a publicly-owned treatment works as defined in the Code of Federal Regulations at 40 CFR 122.2.

PART II

Section A. Definitions

Municipal separate storm sewer system (MS4) means all separate storm sewers that are owned or operated by the United States, a state, city, village, township, county, district, association, or other public body created by or pursuant to state law, having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law, such as a sewer district, flood control district, or drainage district, or similar entity, or a designated or approved management agency under Section 208 of the Federal Act that discharges to the waters of the state. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

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.

Outfall is the location at which a point source discharge enters the surface waters of the state.

Part 91 agency means an agency that is designated by a county board of commissioners pursuant to the provisions of section 9105 of Part 91 of the NREPA; an agency that is designated by a city, village, or township in accordance with the provisions of section 9106 of Part 91 of the NREPA; or the Department for soil erosion and sedimentation activities under Part 615, Part 631, or Part 632 pursuant to the provisions of section 9115 of Part 91 of the NREPA.

Part 91 permit means a soil erosion and sedimentation control permit issued by a Part 91 agency pursuant to the provisions of Part 91 of the NREPA.

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.

Point of discharge is the location of a point source discharge where storm water is discharged directly into a separate storm sewer system.

Point source discharge means a discharge from any discernible, confined, discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, or rolling stock. Changing the surface of land or establishing grading patterns on land will result in a point source discharge where the runoff from the site is ultimately discharged to waters of the state.

Polluting material means any material, in solid or liquid form, identified as a polluting material under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code).

POTW is a publicly owned treatment works.

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.

PART II

Section A. Definitions

Public (as used in the MS4 individual permit) means all persons who potentially could affect the authorized storm water discharges, including, but not limited to, residents, visitors to the area, public employees, businesses, industries, and construction contractors and developers.

Public body means the United States; the state of Michigan; a city, village, township, county, school district, public college or university, or single-purpose governmental agency; or any other body which is created by federal or state statute or law.

Qualifying storm event means a storm event causing greater than 0.1 inch of rainfall and occurring at least 72 hours after the previous measurable storm event that also caused greater than 0.1 inch of rainfall.

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 monitoring frequency 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 shall 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.

Regulated area means the permittee's urbanized area, where urbanized area is defined as a place and its adjacent densely-populated territory that together have a minimum population of 50,000 people as defined by the United States Bureau of the Census and as determined by the latest available decennial census.

Secondary containment structure means a unit, other than the primary container, in which significant materials are packaged or held, which is required by State or Federal law to prevent the escape of significant materials by gravity into sewers, drains, or otherwise directly or indirectly into any sewer system or to the surface or ground waters of this state.

Separate storm sewer system means a system of drainage, including, but not limited to, roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels, which is not a combined sewer where storm water mixes with sanitary wastes, and is not part of a POTW.

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 waste stream 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)).

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 (R 324.2001 through R 324.2009 of the Michigan Administrative Code); Hazardous Wastes as defined in Part 111 of the NREPA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills and significant leaks means any release of a polluting material reportable under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code).

PART II

Section A. Definitions

Special-use area means secondary containment structures required by state or federal law; lands on Michigan's List of Sites of Environmental Contamination pursuant to Part 201, Environmental Remediation, of the NREPA; and areas with other activities that may contribute pollutants to the storm water for which the Department determines monitoring is needed.

Stoichiometric means the quantity of a reagent calculated to be necessary and sufficient for a given chemical reaction.

Storm water means storm water runoff, snow melt runoff, surface runoff and drainage, and non-storm water included under the conditions of this permit.

SWPPP means the Storm Water Pollution Prevention Plan prepared in accordance with this permit.

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.

Total maximum daily loads (TMDLs) are required by the Federal Act for waterbodies that do not meet Water Quality Standards. TMDLs represent the maximum daily load of a pollutant that a waterbody can assimilate and meet Water Quality Standards, and an allocation of that load among point sources, nonpoint sources, and a margin of safety.

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 the NREPA, being R 323.1041 through R 323.1117 of the Michigan Administrative Code.

Weekly monitoring frequency 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 shall be reported for that period if a discharge occurs during that period.

WWSL is a wastewater stabilization lagoon.

WWSL discharge event is a discrete occurrence during which effluent is discharged to the surface water up to 10 days of a consecutive 14 day period.

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

PART II

Section A. Definitions

7-day concentration

FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – The 7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days of discharge during a WWSL discharge event divided by the number of daily concentrations determined. If the number of daily concentrations determined during the WWSL discharge event is less than 7 days, the number of actual daily concentrations determined shall be used for the calculation. 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 WWSL discharge event in the “MAXIMUM” column under “QUALITY OR CONCENTRATION” on the DMR. If the WWSL discharge event was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

FOR ALL OTHER DISCHARGES – The 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. If the number of daily concentrations determined is less than 7, the actual number of daily concentrations determined shall be used for the calculation. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations in the reporting month. 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 DMR. The first 7-day calculation shall be made on day 7 of the reporting month, and the last calculation shall be made on the last day of the reporting month.

7-day loading

FOR WWSLs THAT COLLECT AND STORE WASTEWATER AND ARE AUTHORIZED TO DISCHARGE ONLY IN THE SPRING AND/OR FALL ON AN INTERMITTENT BASIS – The 7-day loading is the sum of the daily loadings determined during any 7 consecutive days of discharge during a WWSL discharge event divided by the number of daily loadings determined. If the number of daily loadings determined during the WWSL discharge event is less than 7 days, the number of actual daily loadings determined shall be used for the calculation. 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 WWSL discharge event in the “MAXIMUM” column under “QUANTITY OR LOADING” on the DMR. If the WWSL discharge event was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred

FOR ALL OTHER DISCHARGES – The 7-day loading is the sum of the daily loadings determined during any 7 consecutive days in a reporting month divided by the number of daily loadings determined. If the number of daily loadings determined is less than 7, the actual number of daily loadings determined shall be used for the calculation. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations in the reporting month. 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 DMR. The first 7-day calculation shall be made on day 7 of the reporting month, and the last calculation shall be made on the last day of the reporting month.

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. A time-proportioned composite sample may be used upon approval of the Department if the permittee demonstrates it is representative of the discharge.

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. Test procedures used shall be sufficiently sensitive to determine compliance with applicable effluent limitations. 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 Resources Division, 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 Department's Electronic Environmental Discharge Monitoring Reporting (e2-DMR) system.

The permittee shall utilize the information provided on the e2-Reporting website at <https://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 **20th day of the month** following each month of the authorized discharge period(s). The permittee may be allowed to submit the electronic forms after this date if the Department has granted an extension to the submittal date.

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 Resources Division, 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. With this annual certification, the permittee shall submit a summary of the previous year's monitoring data. The summary shall include maximum values for samples to be reported as daily maximums and/or monthly maximums and minimum values for any daily minimum samples.

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 NREPA 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 NREPA, 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 and/or minimum 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 second 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.

PART II

Section C. Reporting Requirements

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 maintained (note that an upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation); 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.

No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

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

9. Bypass Prohibition and Notification

- a. **Bypass Prohibition**
Bypass is prohibited, and the Department may take an enforcement action, 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 second 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.

PART II

Section C. Reporting Requirements

- 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 ensure 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, as soon as possible but no later than 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.

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.

PART II

Section C. Reporting Requirements

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 O&M Manual in whole or in part at its 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 O&M 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 C. Reporting Requirements

15. Signatory Requirements

All applications, reports, or information submitted to the Department in accordance with the conditions of this permit that require a signature shall be signed and certified as described in the Federal Act and the NREPA.

The Federal Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

The NREPA (Section 3115(2)) provides that a person who at the time of the violation knew or should have known that he or she discharged a substance contrary to this part, or contrary to a permit or order issued or rule promulgated under this part, or who intentionally makes a false statement, representation, or certification in an application for or form pertaining to a permit or in a notice or report required by the terms and conditions of an issued permit, or who intentionally renders inaccurate a monitoring device or record required to be maintained by the Department, is guilty of a felony and shall be fined not less than \$2,500.00 or more than \$25,000.00 for each violation. The court may impose an additional fine of not more than \$25,000.00 for each day during which the unlawful discharge occurred. If the conviction is for a violation committed after a first conviction of the person under this subsection, the court shall impose a fine of not less than \$25,000.00 per day and not more than \$50,000.00 per day of violation. Upon conviction, in addition to a fine, the court in its discretion may sentence the defendant to imprisonment for not more than 2 years or impose probation upon a person for a violation of this part. With the exception of the issuance of criminal complaints, issuance of warrants, and the holding of an arraignment, the circuit court for the county in which the violation occurred has exclusive jurisdiction. However, the person shall not be subject to the penalties of this subsection if the discharge of the effluent is in conformance with and obedient to a rule, order, or permit of the Department. In addition to a fine, the attorney general may file a civil suit in a court of competent jurisdiction to recover the full value of the injuries done to the natural resources of the state and the costs of surveillance and enforcement by the state resulting from the violation.

16. Electronic Reporting

Upon notice by the Department that electronic reporting tools are available for specific reports, the permittee shall submit all such reports as required by this permit, electronically.

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 NREPA 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 NREPA. 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 NREPA.

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 or prevent 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.

PART II

Section D. Management Responsibilities

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 NREPA.

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 NREPA, 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 any place in which 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 NREPA.

10. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

PART II**Section E. Activities Not Authorized by This Permit****1. POTW Construction**

This permit does not authorize or approve the construction or modification of any physical structures or facilities at a POTW. Approval for the construction or modification of any physical structures or facilities at a POTW must be by permit issued under Part 41 of the NREPA.

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 Resources Division, Groundwater Permits Unit, P.O. Box 30458, 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. Effluent Monitoring
 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 municipal wastewater from the monitoring points listed below to the groundwater in the State of Michigan. The discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
EFFLUENT				
Monitoring Point EQ-1 (RI Influent) for discharge to Rapid Infiltration Basins (RIBs)				
Flow	(report)	GPD	Daily*	Report Total
Flow	(report)	GPY	Annually	Calculation
Total Inorganic Nitrogen	(report)	mg/l	Weekly*	Calculation
Ammonia Nitrogen	(report)	mg/l	Weekly*	Grab
Nitrate Nitrogen	(report)	mg/l	Weekly*	Grab
Nitrite Nitrogen	(report)	mg/l	Weekly*	Grab
Total Kjeldahl Nitrogen	(report)	mg/l	Weekly*	Calculation
pH (Minimum)	(report)	S.U.	Weekly*	Grab
pH (Maximum)	(report)	S.U.	Weekly*	Grab
Biochemical Oxygen Demand (BOD ₅)	(report)	mg/l	Weekly*	Grab
Dissolved Oxygen	(report)	mg/l	Weekly*	Grab
Chloride	(report)	mg/l	Weekly*	Grab
Sodium	(report)	mg/l	Weekly*	Grab
Total Phosphorus	(report)	mg/l	Weekly*	Grab
Sulfate	(report)	mg/l	Weekly*	Grab
Total Mercury				
– Corrected	(report)	ng/l	Quarterly*	Calculation
– Uncorrected	(report)	ng/l	Quarterly*	Grab
– Field Duplicate	(report)	ng/l	Quarterly*	Grab
– Field Blank	(report)	ng/l	Quarterly*	Preparation
– Laboratory Method Blank	(report)	ng/l	Quarterly*	Preparation

PART III

Section A. Groundwater Discharge

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
EFFLUENT				
Monitoring Point EQ-1 (RI Influent) for discharge to Rapid Infiltration Basins (RIBs) (continued)				
Metals†	(report)	µg/l	Quarterly*	Grab
Volatile Organic Compound†	(report)	µg/l	Quarterly*	Grab
Semi-Volatile Organic Compound†	(report)	µg/l	Quarterly*	Grab
Monitoring Points EQ-2 (Outlet) , and EQ-3 (South Irrigation) for discharges to the irrigation fields.				
Flow	(report)	GPD	Daily*	Report Total
Flow	(report)	GPY	Annually	Calculation
Total Inorganic Nitrogen	(report)	mg/l	Weekly*	Calculation
Ammonia Nitrogen	(report)	mg/l	Weekly*	Grab
Nitrate Nitrogen	(report)	mg/l	Weekly*	Grab
Nitrite Nitrogen	(report)	mg/l	Weekly*	Grab
Total Kjeldahl Nitrogen	(report)	mg/l	Weekly*	Calculation
pH (Minimum)	(report)	S.U.	Weekly*	Grab
pH (Maximum)	(report)	S.U.	Weekly*	Grab
Biochemical Oxygen Demand (BOD ₅)	(report)	mg/l	Weekly*	Grab
Dissolved Oxygen	(report)	mg/l	Weekly*	Grab
Chloride	(report)	mg/l	Weekly*	Grab
Sodium	(report)	mg/l	Weekly*	Grab
Total Phosphorus	(report)	mg/l	Weekly*	Grab
Sulfate	(report)	mg/l	Weekly*	Grab
Total Mercury				
– Corrected	(report)	ng/l	Monthly*	Calculation
– Uncorrected	(report)	ng/l	Monthly*	Grab
– Field Duplicate	(report)	ng/l	Monthly*	Grab
– Field Blank	(report)	ng/l	Monthly*	Preparation
– Laboratory Method Blank	(report)	ng/l	Monthly*	Preparation
Metals†	(report)	µg/l	Monthly*	Grab
Volatile Organic Compound†	(report)	µg/l	2×Annually*	Grab
Semi-Volatile Organic Compound†	(report)	µg/l	2×Annually*	Grab

*When discharging

†See Part III.A.12

a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, quarterly sampling shall be in the months of January, April, July, and October. Twice annual sampling shall be in the months of July and September. Monthly sampling will occur once each month in which there is a discharge. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative. Test methods are specified in Part III.A.9.

PART III

Section A. Groundwater Discharge

b) 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 required unless the permittee can demonstrate to the Department that an alternative sampling procedure is representative of the discharge. 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.

In order to demonstrate compliance with EPA Method 1631E and EPA Method 1669, the permittee shall report, on the daily sheet, the analytical results of all field blanks and field duplicates collected in conjunction with each sampling event, as well as laboratory method blanks when used for blank correction. The permittee shall collect at least one (1) field blank and at least one (1) field duplicate per sampling event. If more than ten (10) samples are collected during a sampling event, the permittee shall collect at least one (1) additional field blank AND field duplicate for every ten (10) samples collected. Only field blanks or laboratory method blanks may be used to calculate a concentration lower than the actual sample analytical results (i.e. a blank correction). Only one (1) blank (field OR laboratory method) may be used for blank correction of a given sample result, and only if the blank meets the quality control acceptance criteria. If blank correction is not performed on a given sample analytical result, the permittee shall report under 'Total Mercury – Corrected' the same value reported under 'Total Mercury – Uncorrected.' The field duplicate is for quality control purposes only; its analytical result shall not be averaged with the sample result.

PART III

Section A. Groundwater Discharge

b. Groundwater Monitoring - Mosquito Creek, Perimeter, and Rapid Infiltration Wells

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall sample the groundwater from groundwater monitor wells MC02, MC02D, MC02S, MC04D, MC04S, MC07, MC07D, MC07S, MC08D, MC08S, MC09D, MC09S, MC10, MC10D, MC10S, PL1, PL3, PM2, PM3, PN1, PN2, PN3, PO1, PO2, PO3, PQ1, PQ2, PR1, PR2, PR3, PT1, PT2, PT3, PY1, PY2, PY3, PZ1, PZ2, PZ3, RIA1, RIA2, RIA3, RIB1, RIB2, RIB3, RIC1, RIC2, RIC3, RID1, RID2, RID3, RIE1, RIE2, RIE3, RIF1, RIF2, RIF3, RIG1, RIG2, and RIG3 as described below:

<u>Parameter</u>	<u>Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
Static Water Elevation*	(report)	USGS-Ft	Biannually	Measured
pH	(report)	S.U.	Biannually	Grab
Specific Conductance	(report)	umhos/cm	Biannually	Grab
Total Inorganic Nitrogen	(report)	mg/l	Biannually	Calculation
Ammonia Nitrogen	(report)	mg/l	Biannually	Grab
Nitrate Nitrogen	(report)	mg/l	Biannually	Grab
Nitrite Nitrogen	(report)	mg/l	Biannually	Grab
Chloride	(report)	mg/l	Biannually	Grab
Sodium	(report)	mg/l	Biannually	Grab
Total Phosphorus	(report)	mg/l	Biannually	Grab
Total Iron	(report)	µg/l	Biannually	Grab
Total Manganese	(report)	µg/l	Biannually	Grab
Dissolved Oxygen	(report)	mg/l	Biannually	Grab
Sulfate	(report)	mg/l	Biannually	Grab
Metals**	(report)	µg/l	Annually	Grab
Volatile Organic Compound**	(report)	µg/l	Annually	Grab
Semi-Volatile Organic Compound**	(report)	µg/l	Annually	Grab

*All static water elevation data must be collected within a 48 hour period.

**See Part III.A.12

a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, biannual sampling shall be in the spring and fall. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

b) A bi-annual report including all Groundwater Monitoring data collected under this section shall be submitted to the Department on or before July 1 and January 1 of each year.

c) Total Inorganic Nitrogen at Groundwater Monitoring Points

The value for total inorganic nitrogen shall be reported as the sum of the values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

PART III

Section A. Groundwater Discharge

c. Groundwater Monitoring - Lagoon Seepage Wells

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall sample the groundwater from groundwater monitor wells LS01C1, LS01C2, LS01C3, LS02C1, LS02C2, LS02C3, LS03C1, LS03C2, LS03C3, LS04C1, LS04C2, LS04C3, LS05C1, LS05C2, LS05C3, LS06C1, LS06C2, LS06C3, LS07C1, LS07C2, LS08C1, LS08C2, LS08C3, LS09C1, LS09C2, LS09C3, LS10B1, LS10B2, LS10B3, LS11C1, LS11C2, LS11C3, LS12C1, LS12C2, LS12C3, LS12AC1, LS12AC2, LS12AC3, LS13C1, LS13C2, LS13C3, LS13AC1, LS13AC2, LS13AC3, LS14C1, LS14C2, LS14C3, LS15C1, LS15C2, LS15C3, LS16C1, LS16C2, LS16C3, LS17C1, LS17C2, LS17C3, LS18C1, LS18C2, LS18C3, LS19C1, LS19C2, LS19C3, LS20C1, LS20C2, LS20C3, LS21C1, LS21C2, LS21C3, LS22C1, LS22C2, LS22C3, LS23C1, LS23C2, LS23C3, LS24C1, LS24C2, LS24C3, LS25C1, LS25C2, LS25C3, LS26C1, LS26C2, LS26C3, LS27C1, LS27C2, LS27C3, LS28C1, LS28C2, LS28C3, LS29C1, LS29C2, LS29C3, LS30C1, LS30C2, LS30C3, LS33C1, LS33C2, LS33C3, LS34C2, and LS34C3 as described below:

<u>Parameter</u>	<u>Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
Static Water Elevation	(report)	USGS-Ft	Annually	Measured
pH	(report)	S.U.	Annually	Grab
Specific Conductance	(report)	umhos/cm	Annually	Grab
Total Inorganic Nitrogen	(report)	mg/l	Annually	Calculation
Ammonia Nitrogen	(report)	mg/l	Annually	Grab
Nitrate Nitrogen	(report)	mg/l	Annually	Grab
Nitrite Nitrogen	(report)	mg/l	Annually	Grab
Chloride	(report)	mg/l	Annually	Grab
Sodium	(report)	mg/l	Annually	Grab
Total Phosphorus	(report)	mg/l	Annually	Grab
Total Iron	(report)	µg/l	Annually	Grab
Total Manganese	(report)	µg/l	Annually	Grab
Dissolved Oxygen	(report)	mg/l	Annually	Grab
Sulfate	(report)	mg/l	Annually	Grab
Metals**	(report)	µg/l	Annually	Grab
Volatile Organic Compound**	(report)	µg/l	Annually	Grab
Semi-Volatile Organic Compound**	(report)	µg/l	Annually	Grab

**See Part III.A.12

a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, annual sampling shall be in the spring and summer. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

b) A bi-annual report including all Groundwater Monitoring data collected under this section shall be submitted to the Department on or before July 1 and January 1 of each year.

c) Total Inorganic Nitrogen at Groundwater Monitoring Points

The value for total inorganic nitrogen shall be reported as the sum of the values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

PART III

Section A. Groundwater Discharge

4. Dioxin/Furan Monitoring

Dioxin/Furan monitoring of parameters listed in Part III.A.12 shall occur once in the next permit cycle submitted as a report attached to the next permit application. Results for Dioxin/Furan shall be reported separately for EQ-2 (Outlet) and EQ-3 (South Irrigation) only and samples shall be taken at the time of discharge.

5. Schedule of Compliance

- a) Within 60 days of permit issuance, the permittee shall provide verification of the depth to water and total well depth measurements at MC02S, MC02D, MC04S, MC04D, MC07S, MC07D, MC08S, MC08D, MC09S, MC09D, MC10S, and MC10D. This information will be used to calculate the water column in each well and to finalize the number of shallow monitoring wells to be installed. (Completed June 16, 2015)
- b) By November 2, 2015, the permittee shall submit a work plan for review and approval for the installation of monitoring wells MC02, MC07, and MC10.
- c) Within 120 days of work plan approval, the permittee shall complete all well installation activities and submit a well installation summary report for review that includes an updated well location map, all boring logs, well construction diagrams, and survey data.
- d) Within 120 days of work plan approval, the permittee shall submit for review and approval a Sampling and Analysis Plan that includes both effluent and groundwater sampling requirements pursuant to Rule 2223(3).

*If any document required to be submitted under this section is disapproved by the Department, the permittee shall, within 30 days of receiving written disapproval, submit a revised document addressing the deficiencies.

6. Facility Operation and Inspection

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall comply with the inspection requirements specified below.

<u>Location</u>	<u>Condition</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Irrigation Fields	Ponding	Daily During Discharge	Visual Observation
	Pooling	Daily During Discharge	Visual Observation
	Erosion	Daily During Discharge	Visual Observation
	Odors	Daily During Discharge	Olfactory Observation
	Piping	Daily During Discharge	Visual Observation
	Sprinkler Heads	Daily During Discharge	Visual Observation
Rapid Infiltration Beds	Vegetation Control	Weekly	Visual Observation

PART III

Section A. Groundwater Discharge

7. General Conditions

- a) The discharge shall not be, or not be likely to become, injurious to the protected uses of the waters of the state.
- b) The discharge shall not cause runoff to, ponding on, or flooding of adjacent property, shall not cause erosion, and shall not cause nuisance conditions.
- c) The point of discharge shall be located not less than 100 feet inside the boundary of the property where the discharge occurs, unless a lesser distance is specifically authorized in writing by the Department.
- d) The discharge shall not create a facility as defined in Part 201, Environmental Remediation, of the NREPA.

8. Other Conditions

- a) **Basis of Design** - The discharge shall be treated in accordance with the approved basis of design pursuant to Rule 323.2218(2).
- b) **Wastewater Characterization** - The wastewater being treated shall be of the same chemical, biological, and physical characteristics as described in the characterization required pursuant to Rule 323.2220.
- c) **Land Application:**
Slow Rate Land Application
 - (1) A portion of the flow is expected to percolate to the groundwater while the remainder is utilized by plants or lost through evaporation.
 - (2) The wastewater loading volume shall be designed so that the wastewater will be absorbed and held within the effective rooting zone of the vegetative cover established on the site receiving the wastewater.
 - (3) The header ditch drainage and the grading of the furrows, where utilized, shall be tested for equal liquid distribution before seeding.
 - (4) The system shall be seeded with a mixture of perennial vegetative cover, which are grasses such as reed canary grass, tall fescue, and orchard grass, alone or in combination with legumes, such as clover, alfalfa, and birdsfoot trefoil, suited to the climate and the soil moisture conditions created as a result of the application of wastewater in accordance with the designed loading cycle. The Department may approve alternative vegetative cover on a case-by-case basis, but may impose restrictions based upon the characteristics of the proposed alternative.
 - (5) All furrow side slopes, where present, shall be designed and constructed to allow for periodic maintenance and or mechanical harvesting of vegetative cover.
 - (6) The depth of the furrows of a ridge and furrow system, when utilized, shall be adequate to contain the highest proposed furrow stream.
 - (7) The treatment system must have sufficient hydraulic capacity to treat organic or inorganic loading so that the discharge receives physical, chemical biological treatment or a combination of treatments to meet the standards of Rule 323.2222.
 - (8) Crops for human consumption grown on effluent irrigated fields shall be limited to crops requiring processing prior to consumption.
 - (9) Animals that produce milk for human consumption shall not be allowed to graze on any effluent irrigated fields until 30 days following the application of effluent.
 - (10) In no case shall nutrients provided by wastewater and supplemental fertilization exceed the nutrient requirements of the crop based on the yield goal for that crop.

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Section A. Groundwater Discharge

Rapid Infiltration

- (1) The system shall consist of two (2) or more cells or absorption areas that can be alternately loaded and rested or consist of one (1) cell or absorption area preceded by an effluent storage or stabilization pond system. If only one (1) cell or absorption area is provided, then the storage or stabilization pond shall be operated on a fill and draw basis and have sufficient capacity to allow intermittent loading of the cell or absorption area.
- (2) For a system that has more than one (1) cell or absorption area, an individual cell or absorption area of the system shall be capable of being taken out of service without disrupting application to other cells or absorption areas of the system.
- (3) An appropriate hydraulic loading cycle shall be developed and implemented to maximize long-term infiltration rates and allow for periodic maintenance.

9. Request for Discharge of Water Treatment Additives

In the event a permittee proposes to discharge water treatment additives (WTAs) to groundwater, the permittee shall submit a request to discharge WTAs to the Department for approval. Such requests shall be sent to the Permits Section, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan 48909, with a copy to the Department contact listed on the cover page of this permit. Instructions to submit a request electronically may be obtained via the internet (<http://www.michigan.gov/deqnpdes>; then click on Applicable Rules and Regulations, which is under the Information banner and then click on Water Treatment Additive Discharge Application Instructions). Written approval from the Department to discharge such WTAs at specified levels shall be obtained prior to discharge by the permittee. Failure to obtain approval prior to discharging any WTA is a violation of this permit. Additional monitoring and reporting may be required as a condition for the approval to discharge the WTA. WTAs include such chemicals as herbicides used to kill weeds and grasses as part of lagoon maintenance.

A request to discharge WTAs to groundwater shall include all of the following:

- a) product information:
 - (1) name of the product;
 - (2) Safety Data Sheet (formerly known as Material Safety Data Sheet);
 - (3) product function (i.e. microbiocide, flocculants, etc.);
 - (4) specific gravity if the product is a liquid; and
 - (5) annual product use rate (liquids in gallons per year and solids in pounds per year);
- b) ingredient information:
 - (1) name of each ingredient;
 - (2) CAS number for each ingredient; and
 - (3) fractional content by weight for each product;
- c) the monitoring point from which the WTA is to be discharged;
- d) the proposed WTA discharge concentration;
- e) the discharge frequency (i.e., number of hours per day and number of days per year);
- f) the type of removal treatment, if any, that the WTA receives prior to discharge;
- g) relevant mammalian toxicity studies for the product or all of its constituents (if product toxicity data are submitted, the applicant shall provide information showing that the product tested has the same composition as the product listed under Item "a" above. Preferred studies are subchronic or chronic in duration, use the oral route of exposure, examine a wide array of endpoints and identify a no-observable-adverse-effect-level. Applicants are strongly encouraged to provide the preferred data. If preferred data are not available, then the minimum information needed is an oral rat LD50 study. In

PART III

Section A. Groundwater Discharge

addition, an environmental fate analysis that predicts the mobility of the product/ingredients and their potential to migrate to groundwater may be provided.

- h) If the discharge of the WTA to groundwater is within 1,000 feet of a surface water body, the following information shall also be provided:
 - (1) a 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either Ceriodaphnia sp., Daphnia sp., or Simocephalus sp.); and
 - (2) the results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2) of the Water Quality Standards.

Prior to submitting the request, the permittee may contact the Permits Section by telephone at 517-284-5568 or via the internet at the address given above to determine if the Department has the product toxicity data required by Item "g" above. If the Department has the data, the permittee will not need to submit product toxicity data.

10. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to either SW-846, 3rd edition, September 1986, "Test Methods for the Evaluation of Solid Waste, Physical-Chemical Methods", or Section 304(h) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq), 40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants, unless specified otherwise in this permit. Test procedures used shall be sufficiently sensitive to determine compliance with applicable standards. Volatile Organic Compounds and Semi-Volatile Organic Compounds as listed in Part III.A.12 shall be tested using method(s) 624 or 625 as appropriate in the effluent and using method(s) 8260 or 8270 as appropriate in the groundwater. Requests to use test procedures not defined here shall be submitted to the Department for review and 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.

11. Permit Monitoring Requirements

Pursuant to Rule 323.2223(1), the Department may modify the effluent or groundwater monitoring parameters or frequency requirements of this permit. The permittee may request a modification of the parameters of frequency of monitoring of this permit with adequate supporting documentation.

12. Groundwater Effluent Limitations/Monitoring Reference Tables

As a condition of this permit, the permittee shall monitor the discharge from Monitoring Points EQ-1, EQ-2, and EQ-3, and from the monitoring wells listed under Section 3b and 3c for the constituents listed below.

Metals

Total Aluminum	Total Cadmium	Total Thallium	Total Titanium
Total Antimony	Total Chromium	Total Molybdenum	Total Vanadium
Total Arsenic	Total Cobalt	Total Nickel	Total Zinc
Total Barium	Total Copper	Total Selenium	Total Cyanide
Total Beryllium	Total Lead	Total Silver	
Total Boron	Total Lithium	Total Strontium	

PART III

Section A. Groundwater Discharge

Volatile Organic Compounds

Acetone	1,3-Dichlorobenzene	n-Propylbenzene
Acrolein	1,4-Dichlorobenzene	p-Isopropyl Toluene
Acrylonitrile	(trans) 1,4-Dichloro-2-butene	sec-Butylbenzene
Benzene	1,1-Dichloroethane	Styrene
Bromobenzene	1,2-Dichloroethane	Tertiaryamylmethylether
Bromochloromethane	1,1-Dichloroethene	Tertiary Butyl Alcohol
Bromodichloromethane	(cis) 1,2-Dichloroethene	Tertiary Butylbenzene
Bromoform	(trans) 1,2-Dichloroethene	1,1,1,2-Tetrachloroethane
Bromomethane	1,2-Dichloropropane	1,1,2,2-Tetrachloroethane
2-Butanone	1,3-Dichloropropene	Tetrachloroethylene
Carbon Disulfide	Diethyl ether	Tetrahydrofuran
Carbon Tetrachloride	Diisopropyl ether	Toluene
Chlorobenzene	Ethylbenzene	1,1,1-Trichloroethane
Chloroethane	Ethyltertiarybutylether	1,2,3-Trichlorobenzene
2-Chloroethylvinyl ether	Hexachloroethane	1,2,4-Trichlorobenzene
Chloroform	2-Hexanone	1,1,2-Trichloroethane
Chloromethane	Isopropylbenzene	Trichloroethylene
Cyclohexane	Methyl iodide	Trichlorofluoromethane
Dibromochloromethane	2-Methylnaphthalene	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane	4-Methyl-2-Pentanone	1,2,3-Trimethylbenzene
1,2-Dibromoethane	Methyl Tertiary Butyl Ether	1,2,4-Trimethylbenzene
Dibromomethane	Methylene Chloride	1,3,5-Trimethylbenzene
Dichlorodifluoromethane	Naphthalene	Vinyl Chloride
1,2-Dichlorobenzene	n-Butylbenzene	m&p-Xylene
		o-Xylene

Semi-Volatile Organic Compounds

Acenaphthene	2-Chlorophenol	Indeno(1,2,3-cd)pyrene
Acenaphthylene	4-Chlorophenyl Phenyl Ether	Isophorone
Aniline	Chrysene	N-Methylbenzeneamine
Anthracene	m-Cresol	2-Methylphenol (o-Cresol)
Azobenzene	p-Cresol	2-Nitroaniline
Benidine	Dibenzo(a,h)anthracene	3-Nitroaniline
Benzoic Acid	Dibenzofuran	4-Nitroaniline
Benzo(a)anthracene	3,3-Dichlorobenzidine	Nitrobenzene
Benzo(a)pyrene	2,4-Dichlorophenol	N,N-Dimethylaniline
Benzo(b)fluoranthene	Diethyl Phthalate	2-Nitrophenol
Benzo(g,h,i)perylene	Dimethyl Phthalate	4-Nitrophenol
Benzo(k)fluoranthene	2,4-Dimethylphenol	N-Nitrosodi-n-propylamine
Benzyl Alcohol	Di-n-butylphthalate	N-Nitrosodimethylamine
Bis(2-chloroethoxy)methane	Di-n-octylphthalate	N-Nitrosodiphenylamine
Bis(2-chloroethyl)ether	4,6-Dinitro-o-cresol	Pentachlorophenol
Bis(2-chloroisopropyl)ether	2,4-Dinitrophenol	Phenanthrene
Bis(2-ethylhexyl)phthalate	2,4-Dinitrotoluene	Phenol
4-Bromophenyl Phenyl Ether	2,6-Dinitrotoluene	Pyrene
Butyl Benzyl Phthalate	1,2-Diphenylhydrazine	Pyridine
Carbazole	Fluoranthene	2,4,5-Trichlorophenol
2-Chloroaniline	Fluorene	2,4,6-Trichlorophenol
p-Chloroaniline	Hexachlorobenzene	
4-Chloro-3-methylphenol	Hexachlorobutadiene	
2-Chloronaphthalene	Hexachlorocyclo-pentadiene	

PART III

Section A. Groundwater Discharge

Dioxin/Furan

2,3,7,8-TCDD	1,2,3,4,6,7,8-HpCDD	2,3,4,7,8-PeCDF	1,2,3,7,8,9-HxCDF
1,2,3,7,8-PeCDD	OCDD	1,2,3,4,7,8-HxCDF	1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8-HxCDD	2,3,7,8-TCDF	1,2,3,6,7,8-HxCDF	1,2,3,4,7,8,9-HpCDF
1,2,3,6,7,8-HxCDD	1,2,3,7,8-PeCDF	2,3,4,6,7,8-HxCDF	OCDF
1,2,3,7,8,9-HxCDD			