UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

Draft 2/11/2019

ISSUANCE
Part I
Page I-1
Permit No. MI-0058582-1

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, the Saginaw Chippewa Indian Tribe of Michigan is authorized by the United States Environmental Protection Agency, Region 5, to discharge from the Saganing Water and Wastewater Treatment Plant located at 2600 East Worth Road, Standish, Michigan, Arenac County to an unnamed tributary to Saginaw Bay of Lake Huron, in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit and the authorization to discharge shall expire at midnight, [insert ~ 5 years from the date of signature]. The permittee shall not discharge after the above date of expiration. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the EPA no later than 180 days prior to the above date of expiration.

This permit shall become effective on the date of signature.

Signed and Dated _____, 2019

Draft 2/11/2019

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Director, Water Division

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Treatment Facility Description:

There are three influent pumps that send the water to a 2mm fine screen; an automatic sampler is located in between the pumps and drum screen. Wastewater is then gravity fed into one of two membrane bioreactor (MBR) units. The water is then pumped through the three chambers located in the MBR unit where Aluminum Sulfate is added for phosphorus removal. Mixed liquor is then pumped into the filter unit located at the head of the MBR where it is filtered out at approximately 75 gallons per minute. Treated water then flows through a UV disinfection unit where an automatic sampler is located. Water can be diverted into ponds around the building and/or has the option of discharging through Outfall 001 (Lat: 43.921478; Long: -83.906254) to an unnamed tributary to Saginaw Bay of Lake Huron.

The plant has a design flow of 0.4 million gallons per day (mgd). At this time, the plant only processes approximately .025 mgd with an average of 1500 gallons of sludge wasted. The sludge is wasted from the filter area of the MBR with storage tanks located outside. The sludge is allowed to settle and the decant is brought back into the headworks. The sludge is ultimately taken to the Saginaw Chippewa Indian Tribe of Michigan's Isabella Reservation WWTP for treatment followed by land application.

Summary of Regular Reporting

FOR INFORMATIONAL PURPOSES ONLY

Description	Due Date	Location
Pollutant Minimization Program for Mercury initial submittal	Within 180 days from the effective date of the permit	Part I.A.4
Pollutant Minimization Program for Mercury Status Report	By January 31, each year	Part I.A.4
Wastewater Discharge Monitoring Report Forms (electronically)	Quarterly: by April 21; by July 21; by October 21; by January 21, each year (electronically)	Part I.A.5
Operation and Maintenance Plan Report	By January 31, each year	Part I.A.7.b
Sewage Sludge Removal Report	By January 31, each year	Part I.C

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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 an unnamed tributary to Saginaw Bay of Lake Huron. Such discharge shall be limited and monitored by the permittee as specified below.

	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration					
Parameter	**Monthly**	**7-Day**	**Daily**	**Units**	**Monthly**	**7-Day**	**Daily**	**Units**	**Frequency of Analysis**	**Sample Type**
Flow	(report)	—	(report)	MGD	—	—	—	—	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)										
May 1-Sep 30	13	33	—	lbs/day	4	—	10	mg/L	3xWeekly	24-Hr Composite
Oct 1-Nov 30	30	47	—	lbs/day	9	—	14	mg/L	3xWeekly	24-Hr Composite
Dec 1-March 31	83	130	—	lbs/day	25	40	–	mg/L	3xWeekly	24-Hr Composite
April 1-30	37	53	—	lbs/day	11	—	16	mg/L	3xWeekly	24-Hr Composite
Total Suspended Solids (TSS)										
May 1-September 30	66	100	—	lbs/day	20	30	—	mg/L	3xWeekly	24-Hr Composite
October 1-November 30	66	100	—	lbs/day	28	42	—	mg/L	3xWeekly	24-Hr Composite
Dec 1-April 30	100	150	—	lbs/day	30	45	—	mg/L	3xWeekly	24-Hr Composite
Ammonia Nitrogen (as N)										
May 1-Sep 30	1.7	6.7	—	lbs/day	0.5	—	2	mg/L	3xWeekly	24-Hr Composite
Oct 1-Nov 30	—	12	—	—	—	—	3.6	mg/L	3xWeekly	24-Hr Composite
Dec 1-March 31	—	(report)	—	—	—	—	(report)	mg/L	3xWeekly	24-Hr Composite
April 1-30	—	26	—	—	—	—	7.8	mg/L	3xWeekly	24-Hr Composite
Total Phosphorus (as P)	1.2	—	—	lbs/day	0.5	—	—	mg/L	3xWeekly	24-Hr Composite
E. coli	—	—	—	—	126	—	410	E. coli/100 ml	3xWeekly	Grab
Total Mercury	—	—	(report)	lbs/day	—	—	(report)	ng/l	1 x Semi-annually	Grab
Outfall Observation	(report)	—	—	yes/no	—	—	—	—	Weekly	Visual

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					Minimum Monthly					
$CBOD_5$ Minimum % Removal										
Dec 1-March 31	—	—	—	—	85	—	—	%	Monthly	Calculation
TSS Minimum % Removal										
Dec 1-April 30	—	—	—	—	85	—	—	%	Monthly	Calculation
					Minimum Daily		**Maximum Daily**			
pH	—	—	—	—	6.5	—	9.0	S.U.	3xWeekly	Grab
Dissolved Oxygen										
May 1-Sep 30	—	—	—	—	6	—	—	mg/L	3xWeekly	Grab
Oct 1- Nov 30	—	—	—	—	5	—	—	mg/L	3xWeekly	Grab
Dec 1-March 31	—	—	—	—	4.5	—	—	mg/L	3xWeekly	Grab
April 1-30	—	—	—	—	5	—	—	mg/L	3xWeekly	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 0.4 mgd

a. Narrative Standard
The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge as a result of unnatural quantities which are or may become injurious to any designated uses.

b. Sampling Locations
Samples for $CBOD_5$, Total Suspended Solids, Ammonia Nitrogen, Total Mercury, and Total Phosphorus shall be taken prior to disinfection. Samples for Dissolved Oxygen, E. coli, and pH shall be taken after disinfection. EPA may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.

c. Phosphorus Monitoring
Samples must be collected in a clean bottle (preferably cleaned by a certified laboratory) that was not washed with phosphate detergent. Also, a sulfuric acid preservative must be added immediately after the sample is collected, and it must be stored at less than or equal to 6 (six) degrees Celsius until analysis. The sample should not be frozen.

d. E. coli
The E. coli limits and monitoring requirements are applicable year round. The 30-day average limit is a geometric mean (See Part II, Section E.7.b).

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e. Total Mercury Testing Requirements

The analytical protocol for total mercury shall be in accordance with U.S. 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 EPA within 30 days of such determination. The quarterly sampling shall be conducted in January, April, July and October.

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

f. Outfall Observation

Weekly observations shall be taken at Outfall 001. Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to EPA by calling (312) 886-6106 followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition. "Yes" means unusual characteristics were observed. "No" means no unusual characteristics were observed.

g. Percent Removal Requirements

These requirements shall be calculated based on the monthly (30-day) effluent $CBOD_5$ and TSS concentrations and the monthly influent $CBOD_5$ and TSS concentrations for approximately the same period.

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2. Influent Monitoring Requirements

From the Effective Date of the permit until the Expiration Date, the permittee shall monitor the treatment works' influent wastewater and report to EPA in accordance with the following table. Samples of influent used for calculation of percent removals must be taken the same day as those samples of effluent used for that determination.

Influent Monitoring

Influent Characteristics	Discharge Limitations							Monitoring Requirements	
	Concentration (Specified Units)				Quantity/Loading (lbs/day)			Measuring Frequency	Sampling Type
Parameter	Minimum	Monthly	Weekly	Maximum	Monthly	Weekly	Maximum		
Influent flow (MGD)	-	-	-	-	Report	-	-	Continuous	Total Daily Flow
pH (SU)	Report	-	-	Report	-	-	-	3 x Weekly	Grab
Total Suspended Solids (TSS) (mg/L)	-	Report	Report	-	Report	Report	-	3 x Weekly	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) (mg/L)	-	Report	Report	-	Report	Report	-	3 x Weekly	24-Hr Composite
Mercury, Total (ng/L)	-	-	-	Report	-	-	-	Semi-annually	Grab

a. Monitoring Location
Samples and measurements taken in compliance with the monitoring requirements above shall be taken at a point that is representative of the influent to the treatment works.

b. Total Mercury Testing Requirements
The analytical protocol for total mercury shall be in accordance with U.S. 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 EPA within 30 days of such determination. The quarterly sampling shall be conducted in January, April, July and October prior to the effluent sampling.

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

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3. Additional Monitoring Requirements

a. As a condition of this permit, the permittee shall monitor the discharge from monitoring point 001A for the constituents listed below. Testing shall be conducted in **June 2023**. 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. The permittee shall notify EPA within 14 days of completing the monitoring for the month specified above. Additional reporting requirements are specified in Part II.D.1 & 10.

Hardness
calcium carbonate

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

antimony (1 µg/l)	arsenic (1 µg/l)	barium (5 µg/l)
beryllium (1 µg/l)	boron (20 µg/l)	cadmium (0.2 µg/l)
chromium (5 µg/l)	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)	
available cyanide (2 µg/l) using Method OIA - 1677		
total phenolic compounds		

Volatile Organic Compounds

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

Acid-Extractable Compounds

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

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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		

Quantification Levels and Analytical Methods for Selected Parameters

Total Antimony ..... 1 µg/l	1,2-Diphenylhydrazine ..... 3.0 µg/l
Total Arsenic ..... 1 µg/l	2,4,6-Trichlorophenol ..... 5.0 µg/l
Total Barium ..... 5 µg/l	2,4-Dinitrophenol ..... 19 µg/l
Total Beryllium ..... 1 µg/l	3,3'-Dichlorobenzidine ..... 1.5 µg/l (EPA Method 605)
Total Boron ..... 20 µg/l	Acrylonitrile ..... 1.0 µg/l
Total Cadmium ..... 0.2 µg/l	Benzidine ..... 0.1 µg/l
Hexavalent Chromium ..... 5 µg/l	Bis (2-Chloroethyl) Ether ..... 1.0 µg/l
Total Chromium ..... 10 µg/l	Di-N-Butyl Phthalate ..... 9.0 µg/l
Total Copper ..... 1 µg/l	Fluoranthene ..... 1.0 µg/l
Available Cyanide ..... 2 µg/l (EPA Method OIA 1677)	Hexachlorobenzene ..... 0.01 µg/l (EPA Method 612)
Total Cyanide ..... 5 µg/l	Hexachlorobutadiene ..... 0.01 µg/l (EPA Method 612)
Total Lead ..... 1 µg/l	Hexachlorocyclopentadiene ..... 0.01 µg/l (EPA Method 612)
Total Lithium ..... 10 µg/l	Hexachloroethane ..... 5.0 µg/l
Total Mercury ..... 0.5 ηg/l (EPA Method 1631E)	Phenanthrene ..... 1.0 µg/l
Total Nickel ..... 5 µg/l	Pentachlorophenol ..... 1.8 µg/l
Total Selenium ..... 1.0 µg/l	Vinyl Chloride ..... 0.25 µg/l
Total Silver ..... 0.5 µg/l	
Total Strontium ..... 1000 µg/l	
Total Thallium ..... 1 µg/l	
Total Zinc ..... 10 µg/l	

b. As a condition of this permit, the permittee shall monitor the discharge from monitoring point 001 for the constituents listed below. Testing shall be conducted in **September 2020, March 2021, May 2022 and July 2023.** Grab samples shall be taken for Oil and Grease. For all other parameters, 24-hour composite samples shall be taken.

Total Kjeldahl Nitrogen (TKN) Nitrate plus Nitrite Nitrogen Oil and Grease
Total Dissolved Solids (TDS)

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The results of such monitoring shall be submitted with the application for reissuance. The permittee shall notify EPA within 14 days of completing the monitoring for the month specified above. Additional reporting requirements are specified in Part II.D.1 & 10.

4. Pollutant Minimization Program for Total Mercury

The goal of the Pollutant Minimization Program (PMP) is to maintain the effluent concentration of total mercury at or below 1.3 ng/L. Within 180 days from the effective date of this permit, the permittee shall develop and begin implementing a PMP to proceed toward this goal. The permittee shall submit a copy of the PMP to EPA at the address found in Part I.A.7.b below. The Pollutant Minimization Program shall include the following:

a. an annual review and semi-annual monitoring of potential sources of mercury entering the wastewater collection system;

b. a program for semi-annual monitoring of influent and periodic monitoring of sludge for mercury; and

c. implementation of reasonable cost-effective control measures when sources of mercury are discovered. Factors to be considered include significance of sources, economic considerations, and technical and treatability considerations.

On or before January 31 of each year, the permittee shall submit a status report for the previous calendar year to EPA 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 PMP set forth in this permit may be used to support a request to modify the program or to demonstrate that the PMP requirement has been completed satisfactorily.

A request for modification of the program and supporting documentation shall be submitted in writing to EPA for review. EPA may allow modifications to the program, but this may require a permit modification with public notice.

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

5. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify EPA 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

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facility from which the discharge described in the permit application 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 EPA 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.

6. Reporting

6.1 The permittee shall record all monitoring results required by Part I.A.1 and Part I.A.2 electronically using NetDMR as described below or other electronic method required by EPA. The electronic report shall also be shared with the Environmental Department of the Saginaw Chippewa Indian Tribe.

The electronic reports shall be submitted to the EPA and the Saginaw Chippewa Indian Tribe Environmental Department on a quarterly basis no later than the 21st day of the month (April, July, October, January) following the quarter for which the monitoring was completed.

6.2.1 All monitoring data required by this permit shall be submitted on EPA Form 3320-1 Discharge Monitoring Report (DMR) forms using the electronic DMR (NetDMR), or subsequent internet applications. NetDMR is a web-based application that allows National Pollutant Discharge Elimination System (NPDES) Permittee Users to enter and electronically submit Discharge Monitoring Report (DMR) data through the Central Data Exchange (CDX) to the Integrated Compliance Information System (ICIS). EPA's NetDMR webpage can be found at:
https://netdmr.epa.gov/netdmr/public/home.htm

Please contact, U.S. Environmental Protection Agency, Water Enforcement & Compliance Assurance Branch, Attention: Information Management Specialist - WC-15J, 77 West Jackson Boulevard, Chicago, Illinois 60604, at (312) 886-0148 if you wish to receive additional NetDMR training.

6.2.2 The DMRs shall be signed by a facility's Responsible Official or a Delegated Responsible Official (i.e. a person delegated by the Responsible Official). The Responsible Official of a facility is defined Part II.D.13:

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For NetDMR, the person(s) viewing, editing, signing and submitting the DMRs will need to register (if not already done so) for a new account managed by the EPA Region 5. Facility or permittee staff responsible for signing and submitting DMRs on behalf of an organization; A request for signatory privilege requires submission of a Subscriber Agreement to EPA Region 5. Additionally, Delegated Responsible Officials must be delegated by the Responsible Official, either on-line using NetDMR, or on a paper delegation form provided by EPA. For more information and guidance on NetDMR, please view the following web page: https://netdmr.zendesk.com/home

6.2.3 DMRs submitted using NetDMR shall be submitted to EPA, Region 5 by the 21st day of the month (April, July, October, January) following the quarter for which the monitoring was completed.

A paper copy of the submitted EPA 3320-1 DMR shall be maintained onsite for records retention purposes Part II.C.5. For NetDMR users, view and print the DMR from the Submission Report Information page after each original or revised DMR is submitted.

7. Operation and Maintenance Plan

The permittee shall at all times properly operate and maintain all facilities and systems of conveyance, treatment and control which are installed or used by the permittee to operate the treatment works and achieve and maintain compliance with the conditions of this permit. The requirements below are the first steps of an asset management program which contains goals of effective performance, adequate funding, adequate operator staffing and training. Asset management is a planning process that ensures that you get the most value from each of your assets and have the financial resources to rehabilitate and replace them when necessary, and typically includes five core elements which identify: 1) the current state of the asset; 2) the desired level of service (e.g., per the permit, or for the customer); 3) the most critical asset(s) to sustain performance; 4) the best life cycle cost; and 5) the long term funding strategy to sustain service and performance.

Asset management includes developing a plan to minimize costs while optimizing efficiency and the reliability of your assets. It is intended that subsequent permits will contain the additional requirements to complete the evolution of the O&M Plan into a full-featured asset management program appropriate for the permitted wastewater works. Go to https://www.epa.gov/small-and-rural-wastewater-systems/tools-training-and-technical-assistance-small-and-rural for guidance and additional information.

a. The permittee shall implement an Operation & Maintenance Plan that was developed during the last permit term, which is available to EPA upon request, to document compliance with the following:

    A. Certified Operator. The wastewater treatment facility shall be operated under the direct supervision of a Certified Wastewater Treatment Operator that has the knowledge, skills and experience required for the facility type and size. If the permittee chooses to meet the certification requirements by entering into a contractual agreement with a properly certified operator, a copy of the contract shall be submitted to EPA at the address in Part I.A.7.b below. The permittee shall notify the EPA, in writing, of any changes in certification or contract status within 30 days of the change.

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B. Maintenance and Operations 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, in numbers, training and experience, shall be determined taking into account the work involved in operating the system, conducting maintenance, and complying with this permit.

C. Treatment System Map. Within 90 of the effective date of the permit, the permittee shall begin developing a map of the system service area showing the sewer collection system it owns and operates including the wastewater treatment system. The map shall be of sufficient detail and at a scale to allow easy interpretation. The treatment system information shown on the map shall be based on current conditions and shall be kept up to date and available for review by federal agencies. Concurrently, the permittee should consider the accumulation of asset characterization data into a database for all principle assets inventoried and illustrated, to supplement asset information consistent with the map. Such map(s) shall include, but not be limited to the following:

i. All sanitary sewer lines and related manholes;
ii. All outfalls of the system or the treatment plant outfall(s);
iii. All pump stations and force mains;
iv. The wastewater treatment facility(ies);
v. All surface waters (labeled);
vi. Other major appurtenances such as inverted siphons and air release valves;
vii. A numbering system which uniquely identifies manholes, catch basins, overflow points, regulators and outfalls;
viii. The scale and a north arrow; and
ix. The pipe diameter, date of installation, type of material, distance between manholes and, invert elevations at manhole locations, and the direction of flow.

D. Preventive Maintenance Program. The permittee shall continue implementing the preventive maintenance program that was required by the last permit that helps to prevent breakdowns, reduces wear, improves efficiency and extends the life of equipment and structures. The preventive maintenance program shall consist of at a minimum:

i. A method of periodic inspection, lubrication, adjustment and/or other servicing of machinery, equipment and structures.
ii. A record of repairs, alterations and replacements.
iii. A method of cost accounting and budgeting for the different parts of the preventative maintenance program.

E. User Fees. The permittee shall continue to collect connection fees and user fees from individuals served by the system as are necessary to sustain the operation, maintenance, and repair of the Saganing Water and Wastewater Treatment Plant sewerage systems.

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Fee structures must address both repairs and replacements, for both short-lived mechanical assets and long-lived fixed structural assets. Alternatively, the permittee may provide this revenue from another dedicated revenue source. The Operation & Maintenance plan shall indicate which revenue source(s) are being used and how these contributions are allocated to categories of operation, maintenance, repairs, and replacement.

F. New Connections. The permittee shall continue to enforce appropriate ordinances or regulations governing: (1) Connection to the Saganing Water and Wastewater Treatment Plant sewerage system by the system users; and, (2) The methods and materials to be used in making connections to the Saganing Water and Wastewater Treatment Plant sewerage system in a safe and sanitary manner.

G. 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.

a) The fixed asset inventory shall include the following:

i. 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;
ii. the location of the fixed asset;
iii. the year the fixed asset was installed;
iv. the present condition of the fixed asset (e.g., excellent, good, fair, poor);
v. the depreciated value of the fixed asset in dollars for year specified in accordance with approved schedules; and
vi. 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:

i. 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);
ii. 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
iii. Compute the Business Risk Factor of the fixed asset by multiplying the failure rating from (1) by the criticality rating from (2).

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H. 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.

b. Reporting

Following implementation of the permittee's Operation and Management Plan, 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 EPA at the address below on or before January 31 of each year.

U.S. Environmental Protection Agency, Region 5
Water Division – NPDES Programs Branch
Attention: Tribal Team Leader – WN-15J
77 West Jackson Blvd.
Chicago, Illinois 60604

The written report shall include:

A. a description of the staffing levels maintained during the year;

B. a description of inspections and maintenance activities conducted and corrective actions taken during the previous year;

C. expenditures for collection system maintenance activities, treatment works maintenance activities, corrective actions, and capital improvement during the previous year;

DRAFT

D. 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;

E. 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;

F. an updated asset inventory based on the original submission, including a status of map completion, a summary of the work done in the previous year to complete the map and an estimated date of completion; and

G. an updated OM&R budget with an updated rate schedule that includes the amount of insufficient revenues, if any.

8. Disinfection

If the permittee wishes to change from ultra-violet disinfection to some other type of disinfection (e.g., chlorine), the permittee must notify EPA and receive approval from EPA prior to changing methods. The permit may be modified to include additional requirements.

9. Untreated or Partially Treated Sewage Discharge Requirements

In accordance with Clean Water Act, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from sewer system onto land or into the waters of the US, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, EPA, State, the Saginaw Chippewa Environmental 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 or, alternatively for CSO discharges, in accordance with notification procedures approved by EPA.

In addition, 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 public health as a result of the discharge and shall provide test results to the affected local county health department, the Saginaw Chippewa Environmental Department, State and EPA. The testing shall be done at locations specified

DRAFT

by each affected local county health department but shall not exceed 10 tests for each 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 written notification required above, or, if the results are not yet available submit them as soon as possible as they become available. The 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.

Section B. Industrial Waste Pretreatment Program

1. It is understood that the permittee does not receive the discharge of any type or quantity of substance which may cause interference with the operation of the treatment works; and, therefore, the permittee is not required to immediately develop a Federal Industrial Pretreatment Program to comply with Federal General Pretreatment Regulations at 40 CFR Part 403. The permittee is required to notify EPA within thirty days if any user discharges or proposes to discharge such wastes to the permittee for treatment.

   The permittee shall comply with all applicable requirements 40 CFR Part 403 to prevent any pass through of pollutants or any inhibition or disruption of the permittee's facility, its treatment process, or its sludge process or disposal, which contributes to the violation of the conditions of this permit or any federal, state, or local law or regulation.

2. The permittee shall prohibit the discharge of the following to its wastewater treatment facility:

   i. pollutants which cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Clean Water Act;

   ii. pollutants which restrict, in whole or in part, the permittee's ability to comply with applicable sludge management and disposal requirements;

   iii. pollutants which cause, in whole or in part, operational problems at the treatment facility or in the collection system;

   iv. pollutants which cause pass through or interference;

   v. pollutants which create a fire or explosion hazard in the sewerage system, including, but not limited to, wastestreams with a closed cup with a flashpoint of less than 60 degrees C (140 degrees F) using the test methods specified in 40 CFR 261.21;

   vi. pollutants which will cause corrosive structural damage to the sewerage system, but in no case, discharges with pH of less than 5.0 S.U., unless the works is specifically designed to accommodate such discharges;

DRAFT

vii. solid or viscous pollutants in amounts which will cause obstruction to the flow in the sewerage system resulting in interference;

viii. any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the treatment plant;

ix. heat in amounts which will inhibit biological activity in the treatment plant resulting in interference, but in no case, heat in such quantities that the temperature at the treatment plant exceeds 40 degrees C (104 degrees F) unless the EPA Region 5 Water Division Director, upon request of the permittee, approves alternate temperature limits;

x. pollutants which result in the presence of toxic gases, vapors, or fumes within the sewerage system in a quantity that may cause acute worker health or safety problems;

xi. petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

xii. any trucked or hauled pollutants, except at discharge points designated by the permittee;

xiii. pollutants which violate categorical standards identified in 40 CFR Chapter I, Subchapter N; and

xiv. pollutants which violate local limits established in accordance with 40 CFR 403.5(c).

3. The permittee shall prohibit new discharges of non-contact cooling waters unless there are no cost-effective alternatives. Existing discharges of non-contact cooling water to the WWTP shall be eliminated, where elimination is cost-effective, or where an infiltration/inflow analysis and sewer system evaluation survey indicates the need for such removal.

4. If the permittee accepts trucked-in wastes, the permittee shall evaluate the trucked in waste prior to acceptance in the same manner as it monitors sewered wastes. The permittee shall accept trucked-in wastes only at specifically designated points.

5. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user (SIU) as identified in 40 CFR 403.3(t).

6. Control of Significant Industrial Users (SIUs)

i. The permittee shall impose pretreatment requirements on SIUs which will ensure compliance with all applicable effluent limitations and other requirements set forth in this permit, or any applicable federal, state, or local law or regulation. These requirements shall be applied to SIUs by means of an individual control mechanism.

ii. The permittee shall make no agreement with any user that would allow the user to

DRAFT

contribute an amount or strength of wastewater that would cause violation of any limitation or requirement in this permit, or any applicable federal, state, or local law or regulation.

7. Monitoring of Significant Industrial Users - The permittee shall obtain from SIUs specific information on the quality and quantity of the SIUs discharges to the permittee's WWTP. Except where specifically requested by the permittee and approved by EPA, this information shall be obtained by means of representative monitoring conducted by the permittee or by the SIU under requirements imposed by the Permittee in the SIU's individual control mechanism. Monitoring performed to comply with this requirement shall include all pollutants for which the SIU is significant and shall be done at a frequency commensurate with the significance of the SIU.

8. Reporting and Notification

   i. If a SIU discharges to the WWTP during a given calendar year, the permittee shall submit a Pretreatment Annual Report for that calendar year, due by January 31 of the following year. The Pretreatment Annual Report shall include:

      A. the name, address, and telephone number of the permittee's primary pretreatment contact, and the names and phone numbers of any other individuals who should be contacted regarding aspects of the pretreatment program;

      B. a description of changes or proposed changes in the permittee's pretreatment program, including changes to its legal authority (sewer use ordinance), Industrial User Individual Control Mechanisms, or pretreatment program procedures;

      C. an updated listing of the permittee's SIUs with additions and deletions noted and reasons given for deletions;

      D. a summary of all monitoring data for SIUs, including all industrial self-monitoring and all monitoring of industrial users by the permittee;

      E. a summary of all inspections of industrial users performed by the permittee, violations by industrial users of any requirements imposed by the permittee, and enforcement actions taken against industrial users by the permittee; and

      F. a description of any interferences, upsets or operational problems at the facility, and any increased or unusual levels of pollutants discharged or contained in sludge. The description shall include an evaluation of possible causes and an assessment of the effectiveness of the pretreatment program in preventing interference, pass-through of pollutants, and contamination of sludge.

   ii. The permittee shall notify the EPA in writing of any:

      A. SIU of the permittee's WWTP which has not been previously disclosed to the EPA;

DRAFT

B. anticipated or actual changes in the volume or quality of discharge by an industrial user that could result in the industrial user becoming an SIU as defined in this permit; or

C. anticipated or actual changes in the volume or quality of discharges by a SIU that would require changes to the SIU's individual control mechanism.

This notification shall be submitted as soon as possible and, where changes are proposed, must be submitted prior to changes being made.

iii. Upon notifying the EPA of a SIU or change in a SIU discharge as required above, the permittee shall submit the following for approval:

A. the control mechanism that will be used to control the SIU;

B. a characterization of the SIU's discharge;

C. a load balance for all pollutants for which the SIU is significant, showing the derivation of the limits to be applied to the SIU and the loading to the treatment works by the SIU and other users of the treatment works; and

D. a plan for monitoring the SIU which is consistent with monitoring requirements in this permit.

iv. In addition, the permittee shall, upon request, submit the following to the EPA for approval:

A. the permittee's legal authority to be used for regulating the SIU; and

B. the permittee's procedures for enforcing the requirement imposed on the SIU.

v. This permit may be modified to require development of a pretreatment program approvable under the Federal General Pretreatment Regulation (40 CFR Part 403)

Section C. Land Application of Sewage Sludge

a. Other than removing the sludge from this plant and bringing it to the Isabella Reservation WWTP for further treatment, it is not expected that during the term of this permit the permittee will have to remove sludge from the treatment system for use or disposal. If, however, sludge/solids have to be removed during the term of this permit, thirty days prior to the removal of any sludge from the treatment system, the permittee shall inform EPA and the Tribe's Environmental Services Department in writing, at the addresses below, of its method of sludge disposal. The information shall include any and all contracts, agreements, schedules, and any

DRAFT

other information that may be relevant to the disposal of sludge. The permit may be modified with public notice, to include additional requirements.

U.S. Environmental Protection Agency, Region 5
Water Division – NPDES Programs Branch
Attention: Tribal Team Leader – WN-15J
77 West Jackson Blvd.
Chicago, Illinois 60604

Saginaw Chippewa Indian Tribe of Michigan
Environmental Department
7070 E. Broadway
Mt. Pleasant, Michigan 48858

b. The permittee shall maintain adequate records of the quantities of sludge removed from the treatment plant and taken to the Isabella Reservation WWTP. The permittee shall submit to the EPA an annual summary report of the quantities of sludge removed from the treatment plant. Said reports shall be submitted to the EPA at the address above by January 31 of each year reporting the preceding January thru December interval of sludge removal.

c. The permittee shall analyze its sludge one time during the term of the permit for **Arsenic, Cadmium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Zinc and PCBs** (minimum detection level of 1.0 mg/kg PCBs on a dry weight basis) using one of the methods identified in Part III. All sludge samples shall be collected at a point and in a manner which will yield sample results which are representative of the sludge being tested, and collected at the time which is appropriate for the specific test. The results shall be submitted with the permit renewal application.

d. Duty to mitigate. The permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this permit.

e. Planned Changes. The permittee shall give notice to the EPA and the Tribe's Environmental Department, as soon as possible of any changes in sludge use and disposal.

f. The permittee shall retain records of all monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities for a period of at least 5 years.

g. If the permittee monitors any pollutants more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or Part 503, the results of this monitoring shall be included in the reporting data submitted to the Agency.

h. The permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

DRAFT

i. The permit may be reopened to incorporate any applicable standards for sewage sludge use or disposal promulgated under Section 405(d) of the Act.

j. The permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

k. The permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

l. The permittee shall not store sludge onsite or offsite for more than two years without an approved plan for use or disposal.

DRAFT

PART II
STANDARD CONDITIONS

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Operators must comply with effluent standards or prohibitions established under CWA section 307(a) for toxic pollutants within the time provided in the regulations that establish these standards, even if the permit has not yet been modified to incorporate the requirement. See also paragraph A.5 below.

2. Penalties for Violations of Permit Conditions

EPA will periodically adjust for inflation the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (61 FR 252, December 31, 1996, pp. 69359–69366, as corrected in 62 FR 54, March 20, 1997, pp.13514–13517) as mandated by the Debt Collection Improvement Act of 1996. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every 4 years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties following were adjusted for inflation starting in 1996.

a. Criminal Penalties

(1) Negligent Violations. The CWA provides that any person who negligently violates permit conditions implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person will be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than two years, or both.

(2) Knowing Violations. The CWA provides that any person who knowingly violates permit conditions implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person will be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

(3) Knowing Endangerment. The CWA provides that any person who knowingly violates permit conditions implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury will upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person will be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, will, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can fined up to $2,000,000 for second or subsequent convictions.

(4) False Statement. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit will, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further 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 will, 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. (See Section 309(c)(4) of the Clean Water Act).

DRAFT

b. Civil Penalties. The CWA provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. 3701 note) (currently $37,500 per day for each violation).

c. Administrative Penalties. The CWA provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

(1) Class I Penalty. Not to exceed the maximum amounts authorized by CWA section 309(g)(2)(A) and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. 3701 note) (currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $37,500).

(2) Class II Penalty. Not to exceed the maximum amounts authorized by CWA section 309(g)(2)(B) and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. 3701 note) (currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $157,500).

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, terminated or revoked for cause (as described in 40 CFR 122.62 et. seq) including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any conditions that requires either temporary interruptions or elimination of the permitted discharge; or

d. Information newly acquired by the Agency indicating the discharge poses a threat to human health or welfare.

If the permittee believes that any past or planned activity would be cause for modification or revocation and reissuance under 40 CFR 122.62, the permittee must report such information to the Permit Issuing Authority. The submittal of a new application may be required of the permittee. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5. Toxic Pollutants

Notwithstanding Paragraph A-4, above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" Part II, Section B, Paragraph B-3, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

DRAFT

7. 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 is or may be subject under Section 311 of the Act.

8. State/Tribal 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/Tribal law or regulation under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights nor any infringement of Federal, State, Tribal, or local laws or regulations.

10. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any waters of the United States.

11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

12. Duty to Provide Information

The permittee shall furnish to the Permit Issuing Authority, within a reasonable time, any information which the Permit Issuing Authority 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 Permit Issuing Authority, upon request, copies of records required to be kept by this permit.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

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 condition of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass means the intentional diversion of waste streams from any portion of a treatment facility, which is not a designed or established operating mode for the facility.

DRAFT

(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.

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraph c. and d. of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten 10 days before the date of the bypass, including an evaluation of the anticipated quality and effect of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section D, Paragraph D-8 (24-hour notice).

d. Prohibition of bypass.

(1) Bypass is prohibited and the Permit Issuing Authority may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) 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 in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted notice as required under Paragraph c. of this section.

(2) The Permit Issuing Authority may approve an anticipated bypass, after considering its adverse effects, if the Permit Issuing Authority determines that it will meet the three conditions listed above in Paragraph d. (1) of this section.

4. Upsets

"Upsets" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonably control of the permittee. 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. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit limitation if the requirements of 40 CFR 122.41(n)(3) are met.

5. Removed Substances

This permit does not authorize discharge of solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewater to waters of the United States unless specifically limited in Part I.

DRAFT

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than $\pm$ 10 percent from the true discharge rates throughout the range of expected discharge volumes. Once-through condenser cooling water flow which is monitored by pump logs, or pump hours meters as specified in Part I of this permit, and based on the manufacturer's pump curves, shall not be subject to this requirement. Guidance in selection, installation, calibration, and operation of acceptable flow measurements devices can be obtained from the following references:

a. "A Guide of Methods and Standards for the Measurement of Water Flow", U.S. Department of Commerce, National Bureau of Standards, and Special Publication 421, May 1975, 97 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)

b. "Water Measurement Manual", U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by Catalog No. 127.19/2:W29/2, Stock No. S/N 24003-0027.)

c. "Flow Measurement in Open Channels and Closed Conduits", U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS), Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)

d. "NPDES Compliance Flow Measurement Manual", U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MOD-77, September 1981, 135 pp. (Available from the General Services Building 41, Denver Federal Center, Denver, CO 80225.)

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by the Permit Issuing Authority at any time.

5. Records Contents

Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

DRAFT

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

6. Inspection and Entry

The permittee shall allow the Permit Issuing Authority, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times the facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Change in Discharge

The permittee shall give notice to the Permit Issuing Authority, as soon as possible, of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source; or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D, Paragraph D-10(a).

2. Anticipated Noncompliance

The permittee shall give advance notice to the Permit Issuing Authority by calling (312) 886-6106, of any planned change in the permitted facility or activity which may result in noncompliance with permit requirements. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by the Permit Issuing Authority.

3. Transfer of Ownership or Control

A permit may be automatically transferred to another party if:

a. The permittee notifies the Permit Issuing Authority of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them, and

c. The Permit Issuing Authority does not notify the existing permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph b.

DRAFT

4. Monitoring Reports

See Part I.A.6 of this permit.

5. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of this data submitted in the Discharge Monitoring Report (DMR). Such increased frequency shall also be indicated.

6. Averaging of Measurements

Calculations for limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Permit Issuing Authority in the permit.

7. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule data. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

8. Twenty-Four Hour Reporting

The permittee shall orally report any noncompliance which may endanger health or the environment, within 24 hours from the time the permittee becomes aware of the circumstances by calling (312) 886-6106. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances to the following address:

U.S. Environmental Protection Agency
Water Enforcement & Compliance Assurance Branch
Attention: Branch Chief - WC-15J
77 West Jackson Boulevard
Chicago, Illinois 60604

The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permit Issuing Authority may verbally waive the written report, on a case-by-case basis, when the oral report is made.

The following violations shall be included in the 24-hour report when they might endanger health or the environment.

a. An unanticipated bypass which exceeds any effluent limitation in the permit.

b. Any upset which exceeds any effluent limitation in the permit.

9. Other Noncompliance

The permittee shall report, in narrative form, all instances of noncompliance not previously reported under Section D, Paragraphs D-2, D-4, D-7, and D-8 at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D-8.

10. Changes In Discharges of Toxic Substances

The permittee shall notify the Permit Issuing Authority as soon as it knows or has reason to believe:

DRAFT

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not listed in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 ug/L);

(2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2, 4-dinitrophenol and for 2 methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony; or

(3) Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant (listed at 40 CFR 122, Appendix D. Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 ug/L);

(2) One milligram per liter (1 mg/L) for antimony; or

(3) Ten (10) times the maximum concentration value reported for that pollutant(s) in the permit application.

11. Changes In Discharges of Toxic Substances by Indirect Users

All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Permit Issuing Authority of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Act if it were directly discharging those pollutants; and

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

12. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit. The Permit Issuing Authority may grant permission to submit an application less than 180 days in advance but not later than the permit expiration date.

Where EPA is the Permit Issuing Authority, the terms and conditions of this permit are automatically continued in accordance with 40 CFR 122.6, only where the permittee has submitted a timely and sufficient application for a renewal permit and the Permit Issuing Authority is unable through no fault of the permittee to issue a new permit before the expiration date.

13. Signatory Requirements

All applications, reports, or information submitted to the Permit Issuing Authority shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal

DRAFT

business function, or any other person who performs similar policy - or decision making functions for the corporation; or

(2) The manager of one manufacturing production or operating facility employing more than 250 persons or having gross annual sales of expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(3) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(4) For a municipality, State, Federal, or other public agency; by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the Permit Issuing Authority shall be signed by a person described above or by a duly authorized representative of that person. A person is duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) 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 company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the Permit Issuing Authority.

c. Certification. Any person signing a document under paragraphs (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachment were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including, the possibility of fine and imprisonment for knowing violations."

14. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Permit Issuing Authority. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.

SECTION E. DEFINITIONS FOR PARTS I AND II

1. Permit Issuing Authority

The Regional Administrator of EPA Region 5 or his designee, unless at some time in the future the Tribe receives authority to administer the NPDES program and assumes jurisdiction over the permit; at which time, the Director/Chairman of the Tribal program receiving authorization becomes the issuing authority.

2. Act

"Act" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500, as amended, 33 U.S.C. 1251 et seq.

DRAFT

3. Mass/Day Measurements

a. The "30-day average discharge" is defined as the total mass of all daily discharges sampled and/or measured during a consecutive 30 day period on which daily discharges are sampled and measured, divided by the number of daily discharges samples and/or measured during such period. It is therefore, an arithmetic mean found by adding the weights of the pollutant found each day of the consecutive 30 day period and then dividing this sum by the number of days the tests were reported. The limitation is identified as "Daily Average" or "30-day Average" in Part I of the permit and the average monthly discharge value is reported in the "Average" Column under "Quantity" on the Discharge Monitoring Report (DMR).

b. The "7-day average discharge" is defined as the total mass of all daily discharges sampled and/or measured during a consecutive 7 day period on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such period. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the consecutive 7 day period and then dividing this sum by the number of days the tests were reported. This limitation is identified as "7-day Average" in Part I of the permit and the highest average weekly discharge value is reported in the "Maximum" column under "Quantity" on the DMR.

c. The "maximum daily average" is the total mass (weight) of a pollutant discharge during a calendar day. If only one sample is taken during any calendar day, the weight of pollutant calculated from it is the "maximum daily discharge". This limitation is identified as "Daily Maximum", in Part I of the permit and one highest such value recorded during the reporting period is reported in the "Maximum" column under "Quantity" on the DMR.

d. The "average annual discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar year on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such year. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the year and then dividing the sum by number of days the test were reported. This limitation is defined as "Annual Average" in Part I of the permit and the average annual discharge value is reported in the "Average" column under "Quantity" on the DMR. The DMR for this report shall be submitted in January for the previous reporting calendar year.

4. Concentration Measurements

a. The "30-day average concentration", other than for E. coli bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a consecutive 30 day period on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such period (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during a calendar day. The 30-day average count for E. coli bacteria is the geometric mean of the counts for samples collected during a consecutive 30 day period. This limitation is identified as "30-day Average" or "Daily Average" in Part I of the permit and the average monthly concentration value is reported under the "Average" column under "Quality" on the DMR.

b. The "7-day average concentration", other than for E. coli bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a consecutive 7 day period on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such period (arithmetic mean of the daily concentration value). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The 7-day average count for E. coli bacteria is the geometric mean of the counts for samples collected during a consecutive 7 day period. This limitation is identified as "7-day Average" in Part I of the permit and the highest 7-day average concentration value is reported under the "Maximum" column under "Quality" on the DMR.

c. The "maximum daily concentration" is the concentration of a pollutant discharge during a calendar day. It is identified as "Daily Maximum" in Part I of the permit and the highest such value recorded during the reporting period is reported under the "Maximum" column under "Quality" on the DMR.

d. The "average annual concentration", other than for E. coli bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar year on which daily discharges are sampled and measured

DRAFT

divided by the number of daily discharges sampled and/or measured during such year (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all samples collected during that calendar day. The average yearly count for E. coli bacteria is the geometric mean of the counts for samples collected during a calendar year. This limitation is identified as "Annual Average" in Part I of the permit and the average annual concentration value is reported under the "Average" column under "Quality" on the DMR. The DMR for this report shall be submitted in January for the previous reporting year.

5. Other Measurements

a. The effluent flow expressed as M^3/day (MGD) is the 24 hour average flow averaged monthly. It is the arithmetic mean of the total daily flows recorded during the calendar month. Where monitoring requirements for flow are specified in Part I of the permit the flow rate values are reported in the "Average" column under "Quantity" on the DMR.

b. An "instantaneous flow measurement" is a measure of flow taken at the time of sampling, when both the sample and flow will be representative of the total discharge.

c. Where monitoring requirements for pH, dissolved oxygen or E. coli bacteria are specified in Part I of the permit, the values are generally reported in the "Quality of Concentration" column on the DMR.

6. Types of Samples

a. Composite Sample: A "composite sample" is a combination of not less than 8 influent or effluent portions, of at least 100 ml, collected over the full time period specified in Part I.A. The composite sample must be flow proportioned by either time interval between each aliquot or by volume as it relates to effluent flow at the time of sampling of total flow since collection of the previous aliquot. Aliquots may be collected manually or automatically.

b. Grab Sample: A "grab sample" is a single influent or effluent portion of at least 100 ml which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the total discharge.

7. Calculation of Means

a. Arithmetic Mean: The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.

b. Geometric Mean: The geometric mean of any set of values is the N^{th} root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilogy of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

c. Weighted by Flow Value: Weighted by flow value means the summation of each concentration times its respective flow divided by the summation of the respective flows.

8. Calendar Day

A calendar day is defined as the period from midnight of one day until midnight of the next day. However, for purposes of this permit, any consecutive 24-hour period that reasonably represents the calendar day may be used for sampling.

9. Hazardous Substance

A hazardous substance means any substances designed under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

DRAFT

10. Toxic Pollutant

A toxic pollutant is any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

11. Significant Industrial User

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

12. Chief of the NPDES Programs Branch

The Chief of the NPDES Programs Branch of EPA Region 5 is located at the EPA, Region 5 Office, NPDES Programs Branch, WN-15J, 77 West Jackson Boulevard, Chicago, Illinois 60604, telephone: 312-886-4448.

13. Acute Toxic Unit

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.

14. Bioaccumulative Chemical of Concern

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. 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).

15. Biosolids

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.

16. Bulk Biosolids

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.

17. Chronic Toxic Unit

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.

18. Class B Biosolids

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 40 CFR Part 503. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

DRAFT

19. Detection Level

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.

20. EC_{50}

EC_{50} 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.

21. IC_{25}

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

22. Interference

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 discharge 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): 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.]

23. Land Application

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.

24. LC_{50}

LC_{50} means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

25. Maximum Acceptable Toxicant Concentration

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.

26. Monthly Frequency of Analysis

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

27. NOAEL

NOAEL means the highest tested dose or concentration of a substance that result in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

DRAFT

28. Noncontact Cooling Water

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.

29. Nondomestic user

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.

30. Pretreatment

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.

31. POTW

POTW is a publicly owned treatment works.

32. Quantification Level

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.

33. 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); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

34. Weekly Frequency of Analysis

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

DRAFT

PART III

SEWAGE SLUDGE APPROVED METHODS

APPROVED METHODS FOR THE ANALYSIS OF SEWAGE SLUDGE (40 CFR PART 503)

Parameter	Analysis Method a/
Arsenic	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7 EPA Method 200.9
Cadmium	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7 EPA Method 200.9
Copper	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7 EPA Method 200.9
Lead	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7 EPA Method 200.9
Mercury	EPA Method 200.7
Molybdenum	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7
Nickel	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7 EPA Method 200.9
Selenium	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7 EPA Method 200.9
Zinc	SW-846 Method 6010B b/ SW-846 Method 6020 b/ EPA Method 200.7
Fecal Coliform (MPN only; MF not allowed under this permit)	SM-18th Method 9221 E (MPN) Appendix F, EPA/625/R-92/013 EPA Method 1680 EPA Method 1681
Salmonella bacteria	EPA Method 1682
Helminth Ova	Appendix I, EPA/625/R-92/013
Enteric Viruses	Appendix H, EPA/625/R-92/013
Nitrate (as N)	SM-18th Method 4500-NO_3^- SW-846 Method 9056

DRAFT

	SW-846 Method 9210
Nitrite (as N)	SM-18th Method 4500-NO_2
Nitrate/Nitrite	EPA Method 1685 EPA Method 1686
Ammonia (as N)	SM-18th Method 4500-NH_3 EPA Method 1689 EPA Method 1690
Organic Nitrogen	Value calculated TKN minus NH3-N
Total Kjeldahl Nitrogen (TKN)	SM-18th Method 4500-N_{org} EPA Method 1687 EPA Method 1688
Total Solids	SM-18th Method 2540 G EPA Method 1684
Total Volatile Solids	SM-18th Method 2540 G
pH	SW-846 Method 9040C SW-846 Method 9045D
Specific Oxygen Uptake Rate in Biosolids	EPA Method 1683

a/ The references for the specified analytical methods are listed below:
EPA/626/R-92/013 means *Environmental Regulations and Technology, Control of Pathogens and Vector Attraction in Sewage Sludge (Including Domestic Septage) Under 40 CFR Part 503*, EPA Publication EPA/625/R-92/013, Revised October 1999. Use the indicated appendix. A copy of the document can be downloaded in PDF format from the National Risk Management Research Laboratory Web page at http://www.epa.gov/ORD/NRMRL/pubs/625r92013/625r92013.htm.

SM-18th means *Standard Methods for the Examination of Water and Wastewater*, 18th Edition, 1992, American Public Health Association, 1015 15th Street, NW., Washington, DC 20005.

SW-846 means *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA publication SW-846 Third Edition (September 1986), Update I (July 1992), Update II (September 1994), Update IIA (August 1993), Update IIB (January 1995), and Update III (December 1996). Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

All methods except those in *Standard Methods for the Examination of Water and Wastewater* can be found at http://water.epa.gov/scitech/methods/cwa/index.cfm or http://water.epa.gov/scitech/methods/cwa/other.cfm.

Older Methods (i.e AA Furnace methods may also be utilized with permission of the permitting authority.

b/ All samples must be digested using SW-846 Method 3050B, 3051A or 3052 or equivalent (using equivalent to 1 gram dry weight) prior to analysis by any of the procedures indicated. The AA direct Aspiration analyses are applicable at moderate concentration levels in clean complex matrix systems. AA Furnace methods can increase sensitivity if matrix effects are not severe. Inductively Coupled Plasma (ICP) methods are applicable over a broad linear range and are especially sensitive for refractory elements.

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Preventing Pollution is the Best Solution

The Environmental Protection Agency encourages you to consider pollution prevention alternatives. In some cases pollution prevention may allow you to avoid the need to discharge pollutants which would otherwise require permit limitations -- or even avoid the need for permits altogether! Pollution prevention can:

- ☑ Save Money
- ☑ Reduce Waste
- ☑ Aid Permit Compliance
- ☑ Protect Our Environment
- ☑ Improve Corporate Image
- ☑ Reduce Liability

EPA is helping industries save money, reduce waste and protect our environment through pollution prevention. EPA staff can provide pollution prevention assistance through telephone consultations, technical workshops and seminars, and informational publications. They can also put you directly in touch with local support networks and national pollution prevention resources.

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