

Detroit Edison



August 12, 2003
NRC-03-0069

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D C 20555-0001

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: Submittal of Fermi 2 National Pollutant
Discharge Elimination System (NPDES) Permit

In accordance with Section 3.2 of the Fermi 2 Environmental Protection Plan, please find enclosed a copy of the Detroit Edison NPDES Permit No. MI0037028 for Fermi 2 Power Plant in Newport, Michigan. The permit was modified on July 18, 2003, and it became effective on that date.

If you have any questions regarding this report, please contact Lynda Craine, General Supervisor, Radiation Protection – Technical Services and Support, at (734) 586-4970.

Sincerely

A handwritten signature in black ink, appearing to read 'Norman K. Peterson'.

Norman K. Peterson
Manager – Nuclear Licensing

Enclosure

cc: H. K. Chernoff
M. A. Ring
NRC Resident Office
Regional Administrator, Region III
Region III

COD/

PERMIT NO. MI0037028

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

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

Detroit Edison Company
2000 Second Avenue
655 G.O.
Detroit, Michigan 48226

is authorized to discharge from the Detroit Edison Company, Fermi-2 Power Plant located at

6400 Dixie Highway
Newport, Michigan 48166

designated as DECO-Fermi-2 Pt

to the receiving water named Lake Erie and to the receiving water named Swan Creek via an overflow canal in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

In accordance with Section 324.3118 of the Michigan Act, the permittee shall make payment of a \$200.00 annual storm water fee to the Department, which shall be postmarked no later than March 15 of each year.


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

This permit is based on a complete application submitted on April 12, 1999 as amended through December 27, 1999.

This modified permit takes effect immediately. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules.

This permit and the authorization to discharge shall expire at midnight, October 1, 2004. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information and forms as are required by the Michigan Department of Environmental Quality to the Jackson District Supervisor of the Surface Water Quality Division by April 1, 2004.

Issued September 15, 2000. Based on a request submitted on May 8, 2003, this permit was modified on July 18, 2003.


D. Steven Eldredge, Chief
Surface Water Permits Section
Water Division

Note: Pursuant to the September 15, 2002 reorganization of the Department, all references to the "Surface Water Quality Division" in this permit should now be interpreted as the "Water Division".

PART I

Section A. Limitations and Monitoring Requirements

1. Final Effluent Limitations, Monitoring Point 001A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge a maximum of forty five million one hundred thousand (45,100,000) gallons per day of cooling tower blowdown, processed radwaste wastewater, chemical and nonchemical metal cleaning wastes from Monitoring Point 001A through Outfall 001 to Lake Erie. Such discharge shall be limited and monitored by the permittee as specified below.

Parameter	Maximum Limits for Quantity or Loading			Maximum Limits for Quality or Concentration			Frequency* of Analysis	Sample Type
	Monthly	Daily	Units	Monthly	Daily	Units		
Flow	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Temperature								
Intake	---	---	---	---	(report)	°F	Daily	Reading
Discharge	---	---	---	---	(report)	°F	Daily	Reading
Total Residual Oxidant (TRO)								
<u>During Chlorination - No Bromine Use</u>								
<u>Discharge Mode</u>								
Continuous (greater than 160 min/day)		---	---	---	38	ug/l	5X Weekly	Grab
Intermittent (less than/equal to 160 min/day)		---	---	---	200	ug/l	5X Weekly	Grab
<u>During Bromine Use - the discharge of bromine shall not exceed 120 min/day</u>								
Intermittent (less than/equal to 120 min/day)		---	---	---	50	ug/l	5X Weekly	Grab
TRO Discharge Time	---	---	---	---	(report)	min/day	Daily	Report Total Discharge Time
Total Copper	---	---	---	---	(report)	ug/l	Quarterly	24-Hr Composite
Spectrus CT-1300	---	---	---	3.2	5.0	ug/l	**Every 3 Hrs	Grab
Outfall Observation	(report)	---	---	---	---	---	Daily	Visual
pH	---	---	---	<u>Minimum</u> Daily 6.5	<u>Maximum</u> Daily 9.0	S.U.	Weekly	Grab

*During discharge

**During the first twenty four (24) hours after beginning discharge from the Circulating Water System.

During the first twenty four (24) hours after beginning discharge from the Residual Heat Removal System Service Water, if monitoring is required as defined in Part LA.2.b.

- a. Narrative Standard
The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge.
- b. Monitoring Location
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken Intake – prior to entering the plant, Discharge prior to mixing with Lake Erie.

PART I

Section A. Limitations and Monitoring Requirements

c. Outfall Observation

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 the Jackson District Supervisor of the Surface Water Quality Division followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.

d. Water Treatment Additives

This permit does not authorize the discharge of water additives without approval from the Department. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, the permittee shall submit a request to the Department for approval. See Part I.A.11. for information on requesting water treatment additive use.

e. TRO (Chlorine and Bromine) Requirements

Total Residual Oxidant (TRO) shall be analyzed for using EPA Method 330.1 (alternate methods may be used upon approval of the Jackson District Supervisor of the Surface Water Quality Division). TRO monitoring is only required during periods of chlorine or bromine use and subsequent discharge. Limitations for the intermittent discharge of chlorine apply only when the discharge of chlorine is less than or equal to 160 minutes per day, otherwise the limitations for continuous discharge of chlorine apply. Authorization to discharge bromine with or without chlorine is limited to 120 minutes per day at the limitations specified above with the additional requirement that any discharge of chlorine is restricted to a concurrent discharge with bromine (no additional discharge of chlorine is authorized for that day).

During the intermittent discharge of chlorine without bromine ("During Chlorination - No Bromine Use" limitations given above), the daily concentration value reported for TRO shall be the average of a minimum of three (3) equally spaced grab samples taken during a chlorine discharge event, with the additional limitation that no single sample may exceed 300 ug/l.

During the intermittent discharge of bromine with or without chlorine ("During Bromine Use" limitations given above), the daily concentration value reported for TRO shall be the maximum of at least three (3) equally spaced grab samples taken during a bromine discharge event (no single sample may exceed 50 ug/l).

The permittee shall enter a zero ("0") on the Discharge Monitoring Report for the TRO discharge modes not being used.

The permittee may use dehalogenation techniques to achieve the applicable TRO limitations, using sodium thiosulfate, sodium sulfite, sodium bisulfite, or other dehalogenating reagents approved by the Jackson District Supervisor. The quantity of reagent(s) used shall be limited to 1.5 times the stoichiometric amount of applied chlorine/bromine oxidant. Each month the permittee shall report the quantity of each dehalogenation reagent used per day.

f. Discharge of Radioactive materials

The Federal Nuclear Regulatory Commission provides the regulation of radioactive materials under the Fermi 2 Nuclear Power Plant's operating license.

g. Zebra Mussel Control Requirements

The discharge of Betz Spectrus CT 1300 is restricted to no more than two (2) times per year. The permittee shall not discharge Betz Spectrus CT 1300 from outfall 001A and 001B concurrently. The permittee shall notify the Jackson District Supervisor of the Surface Water Quality Division at least one (1) week prior to each discharge.

The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with the Orange II/Methylene Chloride Method. The quantification level shall not exceed 50 ug/l for Spectrus CT-1300 unless higher levels are appropriate because of sample matrix interference. Other methods may be used upon approval of the Jackson District Supervisor. The highest value measured during the discharge event shall be reported. If the concentration in all samples is less than the quantification level, report zero on the discharge monitoring reports.

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

The water quality-based effluent limits are less than the quantification levels using the specified analytical method. Detoxification of the treated effluent is required using bentonite clay unless the permittee demonstrates to the Jackson District Supervisor, through mass-balance calculations, that the final effluent limit of 3.2 ug/l for Betz Spectrus CT-1300 will be met. If a successful demonstration is not made the permittee shall conduct a 48-hour acute toxicity test using a *Daphnia* species to verify adequate detoxification. This test shall be conducted on the discharge during the first treatment of Spectrus CT-1300. This test shall be conducted using procedures contained in EPA/600/4-90/027F "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms." The results of the toxicity testing and discharge concentrations shall be submitted to the Jackson District Supervisor within 30 days following the first treatment of Spectrus CT-1300.

Any discharge of Betz Spectrus CT-1300 at or above the indicated quantification levels is a specific violation of this permit. If all the samples in any monthly reporting period are

- (1) less than the above quantification levels and
- (2) if toxicity testing is required because of the lack of a successful demonstration, the results of the effluent toxicity testing do not exceed 1.0 acute toxic units (TU_A)

the Michigan Department of Environmental Quality will consider the permittee to be in compliance with the final effluent limitations for this pollutant for that reporting period.

If the results of effluent toxicity testing for Spectrus CT-1300 exceeds 1.0 TU_A, the permittee shall discontinue use of that product and notify the Jackson District Supervisor. The permittee will not be authorized to discharge that product until a demonstration is made to the Jackson District Supervisor that 1.0 TU_A will be consistently achieved.

h. **Quantification Level for Total Copper**

The quantification level for total copper shall be shall be 1.0 ug/l unless a higher level is appropriate because of sample matrix interference. The quarterly samples shall be collected in the months of January, April, July and October.

PART I

Section A. Limitations and Monitoring Requirements

2. Final Effluent Limitations, Monitoring Point 001B

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 a maximum of one million four hundred forty thousand (1,440,000) gallons per day of residual heat removal system service water excess from Monitoring Point 001B through Outfall 001 to Lake Erie. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	--	--	--	*	Report Total Daily Flow
Spectrus CT-1300	--	--	--	--	(report)	ug/l	See b below	Grab

*Daily during discharge of Spectrus CT 1300

- a. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to mixing with other wastestreams.
- b. The permittee shall monitor each division of the residual heat removal system prior to discharge to the circulating water system.
 - 1). If the concentration of Spectrus CT 1300 in the residual heat removal system service water is <50 ug/l monitoring for Spectrus CT 1300 at monitoring point 001A will not be required
 - 2) If the concentration of Spectrus CT 1300 in the residual heat removal system service water is ≥50 ug/l monitoring for Spectrus CT 1300 at monitoring point 001A is required. See Part I.A.1.
- c. Zebra Mussel Control Requirements
 The discharge of Betz Spectrus CT 1300 is restricted to no more than eight (8) times per year. . The permittee shall not discharge Betz Spectrus CT 1300 from outfall 001A and 001B concurrently. The permittee shall notify the Jackson District Supervisor of the Surface Water Quality Division.

The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with the Orange II/Methylene Chloride Method. The quantification level shall not exceed 50 ug/l for Spectrus CT-1300 unless higher levels are appropriate because of sample matrix interference. Other methods may be used upon approval of the Jackson District Supervisor. The highest value measured during the discharge event shall be reported. If the concentration in all samples is less than the quantification level, report zero on the discharge monitoring reports.

The water quality-based effluent limits are less than the quantification levels using the specified analytical method. Detoxification of the treated effluent is required using bentonite clay unless the permittee demonstrates to the Jackson District Supervisor, through mass-balance calculations, that the final effluent limit of 3.2 ug/l for Betz Spectrus CT-1300 will be met at Outfall 001. If a successful demonstration is not made the permittee shall conduct a 48-hour acute toxicity test using a *Daphnia* species to verify adequate detoxification at Outfall 001. This test shall be conducted on the discharge during the first treatment of Spectrus CT-1300. This test shall be conducted using procedures contained in EPA/600/4-90/027F "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms." The results of the toxicity testing and discharge concentrations shall be submitted to the Jackson District Supervisor within 30 days following the first treatment of Spectrus CT-1300.

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

Any discharge of Betz Spectrus CT-1300 at or above the indicated quantification levels is a specific violation of this permit. If all the samples in any monthly reporting period are

(1) less than the above quantification levels and

(2) if toxicity testing is required because of the lack of a successful demonstration, the results of the effluent toxicity testing do not exceed 1.0 acute toxic units (TU_A)

the Michigan Department of Environmental Quality will consider the permittee to be in compliance with the final effluent limitations for this pollutant for that reporting period.

If the results of effluent toxicity testing for Spectrus CT-1300 exceeds 1.0 TU_A, the permittee shall discontinue use of that product and notify the Jackson District Supervisor. The permittee will not be authorized to discharge that product until a demonstration is made to the Jackson District Supervisor that 1.0 TU_A will be consistently achieved.

PART I

Section A. Limitations and Monitoring Requirements

3. Final Effluent Limitations, Monitoring Point 001D (Formerly Outfall 00A)

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 a maximum of two hundred sixteen thousand (216,000) gallons per day of processed radwaste wastewater from Monitoring Point 001D through Outfall 001 to Lake Erie. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	--	--	--	Daily per Occurrence	Report Total Daily Flow
Total Suspended Solids	--	--	--	30	100	mg/l	Weekly per Occurrence	Grab
Oil & Grease	--	--	--	15	20	mg/l	2X Monthly per Occurrence	Grab

- a. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to mixing with other wastestreams.

PART I

Section A. Limitations and Monitoring Requirements

4. Final Effluent Limitations, Monitoring Point 001E (Formerly Outfall 00E)

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 a maximum of five hundred thousand (500,000) gallons per day of treated chemical and nonchemical metal cleaning wastes from Monitoring Point 001E through Outfall 001 to Lake Erie. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	---	---	---	Daily per Occurrence	Report Total Daily Flow
Total Suspended Solids	---	---	---	30	100	mg/l	Weekly per Occurrence	Grab
Oil & Grease	---	---	---	15	20	mg/l	2X Monthly per Occurrence	Grab
Total Copper	---	---	---	---	1.0	mg/l	Daily per Occurrence	Grab
Total Iron	---	---	---	---	1.0	mg/l	Daily per Occurrence	Grab

- a. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to mixing with other wastestreams.

PART I

Section A. Limitations and Monitoring Requirements

5. Final Effluent Limitations, Monitoring Point 009A

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 a maximum of seven hundred twenty thousand (720,000) gallons per day of storm water runoff, low volume wastes and chemical and nonchemical metal cleaning wastes from Monitoring Point 009A through Outfall 009 to Swan Creek via overflow canal. Such discharge shall be limited and monitored by the permittee as specified below.

Parameter	Maximum Limits for Quantity or Loading			Maximum Limits for Quality or Concentration			Frequency***	Sample Type
	Monthly	Daily	Units	Monthly	Daily	Units		
Flow	(report)	(report)	MGD	--	--	--	Daily	Report Total Daily Flow
Total Suspended Solids	--	--	--	30	100	mg/l	Daily	Grab
Oil & Grease	--	--	--	15	20	mg/l	Daily	Grab
Total Barium	1.1	--	lbs/day	190	--	ug/l	Daily **	Grab Composite
Total Copper	0.17	--	lbs/day	29	--	ug/l	Daily **	Grab Composite
Total Selenium	0.03	--	lbs/day	5.0	--	ug/l	Daily **	Grab Composite
Total Boron	--	--	--	--	(report)	ug/l	Weekly **	Grab Composite
Total Iron	--	--	--	--	1.0	mg/l	Daily *	Grab Composite
Total Residual Chlorine	--	--	--	--	0.038	mg/l	Daily	Grab
Outfall Observation	(report)	--	--	--	--	--	Daily	Visual
pH	--	--	--	<u>Minimum Daily</u> 6.5	<u>Maximum Daily</u> 9.0	S.U.	Daily	Grab

*The monitoring requirements and limits for total iron apply only to the discharge of chemical and nonchemical metal cleaning wastes. The chemical and nonchemical metal cleaning wastes shall not be mixed with any other wastestream prior to treatment and sampling for compliance monitoring. The grab-composite sample shall consist of one grab sample taken every four hours during the discharge event.

**When discharging low volume wastes and/or chemical and nonchemical metal cleaning wastes.

***During discharge

- 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.
- b. Monitoring Location
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the overflow canal.

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

- c. **Outfall Observation**
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 the Jackson District Supervisor of the Surface Water Quality Division followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- d. **Water Treatment Additives**
This permit does not authorize the discharge of water additives without approval from the Department. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, the permittee shall submit a request to the Department for approval. See Part I.A.112. for information on requesting water treatment additive use.
- e. **Quantification Level for Total Boron**
The quantification level for total boron shall be shall be 20 ug/l unless a higher level is appropriate because of sample matrix interference.
- f. **Total Residual Chlorine**
Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one (1) sample per day is taken, the additional samples shall be collected in near equal intervals over at least eight (8) hours. The samples shall be analyzed immediately upon collection and the average reported as the daily concentration. Beginning December 1, 2001, EPA Method 330.1 or the Orion 97-70 electrode shall be used for analysis (alternate methods may be used upon approval of the Jackson District Supervisor of the Surface Water Quality Division).
- g. **Monitoring Frequency Reduction for Total Selenium and Total Barium**
After the submittal of twenty four months of data, the permittee may request a reduction in monitoring frequency for total selenium and total barium. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Jackson District Supervisor of the Surface Water Quality Division. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.5. of this permit. The Jackson District Supervisor may revoke the approval for reduced monitoring at any time upon notification to the permittee.

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Section A. Limitations and Monitoring Requirements

6. Final Effluent Limitations, Monitoring Point 011A

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 a maximum of seven million (7,000,000) gallons per day of treated oily wastewater, firefighting system pressurization water, intake screen and strainer backwash water, noncontact cooling water for the air conditioner system, and storm water runoff from Monitoring Point 011A through Outfall 011 to Swan Creek via overflow canal. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	--	--	--	Daily	Report Total Daily Flow
Total Copper	--	--	--	--	(report)	ug/l	Monthly	24-Hr Composite
Total Barium	--	--	--	--	(report)	ug/l	Monthly	24-Hr Composite
Outfall Observation	(report)	--	--	--	--	--	Daily	Visual
pH	--	--	--	<u>Minimum Daily</u> 6.5	<u>Maximum Daily</u> 9.0	S.U.	Weekly	Grab

- a. **Narrative Standard**
The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge.
- b. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the overflow canal.
- c. **Outfall Observation**
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 the Jackson District Supervisor of the Surface Water Quality Division followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- d. **Water Treatment Additives**
This permit does not authorize the discharge of water additives without approval from the Department. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, the permittee shall submit a request to the Department for approval. See Part I.A.11. for information on requesting water treatment additive use.
- e. **The permittee shall collect and remove debris accumulated on intake trash bars and dispose of such material on land in an appropriate manner.**

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

- f. **Quantification Level for Total Copper, and Total Barium**
The quantification level for total copper shall be 1 ug/l unless a higher level is appropriate because of sample matrix interference. The quantification level for total barium shall be 5 ug/l unless a higher level is appropriate because of sample matrix interference.
- g. **Monitoring Frequency Reduction for Total Copper and Total Barium**
After the submittal of twenty four months of data, the permittee may request a reduction in monitoring frequency for total copper and total barium. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Jackson District Supervisor of the Surface Water Quality Division. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part LA.6. of this permit. The Jackson District Supervisor may revoke the approval for reduced monitoring at any time upon notification to the permittee.

PART I

Section A. Limitations and Monitoring Requirements

7. Final Effluent Limitations, Monitoring Point 011C (Formerly Outfall 00C)

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 a maximum of seventy three thousand (73,000) gallons per day of treated oily wastewater from Monitoring Point 011C through Outfall 011 to Swan Creek via overflow canal. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	--	--	--	Weekly	Report Total Daily Flow
Total Suspended Solids	--	--	--	30	100	mg/l	Weekly	Grab
Oil & Grease	--	--	--	15	20	mg/l	2X Monthly	Grab

- a. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to mixing with other wastestreams.

PART I

Section A. Limitations and Monitoring Requirements

8. Final Effluent Limitations, Monitoring Point 013A

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 a maximum of four hundred fifty million (450,000,000) gallons per year of settled water from dredged material storage basin storing material dredged from Lake Erie from Monitoring Point 013A through Outfall 013 to Lake Erie. Such discharge shall be limited and monitored by the permittee as specified below.

Parameter	Maximum Limits for Quantity or Loading			Maximum Limits for Quality or Concentration			Frequency* of Analysis	Sample Type
	Monthly	Daily	Units	Monthly	Daily	Units		
Flow	(report)	(report)	MGD	--	--	--	Daily	Report Total Daily Flow
Total suspended Solids								
Intake	--	--	--	(report)	(report)	mg/l	Daily	Grab
Discharge	--	--	--	(report)	(report)	mg/l	Daily	Grab
Net Discharge (Net Discharge = Discharge -- Intake)	--	--	--	30	100	mg/l	Daily	Grab
Outfall Observation	(report)	--	--	--	--	--	Daily	Visual
				Minimum	Maximum			
pH	--	--	--	Daily 6.5	Daily 9.0	S.U.	Daily	Grab

*During discharge

- 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.
- b. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to Lake Erie.
- c. **Outfall Observation**
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 the Jackson District Supervisor of the Surface Water Quality Division followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- d. **Water Treatment Additives**
This permit does not authorize the discharge of water additives without approval from the Department. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, the permittee shall submit a request to the Department for approval. See Part I.A.11. for information on requesting water treatment additive use.

PART I

Section A. Limitations and Monitoring Requirements

9. Power Plants - PCB Prohibition

Beginning upon the effective date of this permit, the permittee shall not discharge any polychlorinated biphenyls to the receiving waters of the state of Michigan as a result of plant operations.

10. Option to Provide Additional Toxicity Data

The effluent limits for Total Barium in Part I.A.5. for monitoring point 009A through outfall 009 are based upon Tier II water quality values. On or before October 1, 2002, the permittee may submit additional mammalian or aquatic toxicity data to reduce the uncertainty factor used in the development of Tier II values or to allow for calculation of Tier I values. Prior to conducting any additional toxicity testing, the permittee should contact the Jackson District Supervisor to determine the appropriate testing. Following submittal and review of this data, this permit may be modified in accordance with applicable laws and rules.

PART I**Section A. Limitations and Monitoring Requirements****11. Request for Discharge of Water Treatment Additives**

Requests for the discharge of water treatment additives shall be sent to the Great Lakes and Environmental Assessment Section, Surface Water Quality Division, Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan 48909, with a copy of the request to the Jackson District Supervisor. Instructions may be obtained via the internet at <http://www.deq.state.mi.us/swq/gleas/docs/wta/wtamemo.htm> to submit a request electronically. Written approval from the Department to discharge such additives at specified levels shall be obtained prior to discharge by the permittee. Additional monitoring and reporting may be required as a condition for the approval to discharge the additive.

A request to discharge water additives shall include all of the following water additive usage and discharge information:

- a. Material Safety Data Sheet;
- b. the proposed water additive discharge concentration;
- c. the discharge frequency (i.e., number of hours per day and number of days per year);
- d. the monitoring point from which the product is to be discharged;
- e. the type of removal treatment, if any, that the water additive receives prior to discharge;
- f. product function (i.e. microbiocide, flocculant, etc.);
- g. a 48-hour LC_{50} or EC_{50} for a North American freshwater planktonic crustacean (either *Ceriodaphnia sp.*, *Daphnia sp.*, or *Simocephalus sp.*); and
- h. the results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2) of the Water Quality Standards.

Prior to submitting the request, the permittee may contact the Great Lakes and Environmental Assessment Section by telephone at 517-335-4184 or via the internet at <ftp://ftp.deq.state.mi.us/pub/swq/rule57/WTA/WTAList.doc> to determine if the Department has the product toxicity data required by items *g* and *h* above. If the Department has the data, the permittee will not need to submit product toxicity data.

12. Temperature Modification

The Michigan Department of Environmental Quality is considering the necessity of incorporating temperature limitations in this permit to assure that the requirements of Rule 323.1082 of the Water Quality Standards are met. Therefore, when consideration of this issue has been completed, the Department may modify this permit in accordance with applicable laws and rules to add appropriate temperature limitations or requirements.

13. Cold Shock Prevention

Cessation of thermal inputs to the receiving water by this facility shall occur gradually to the extent plant operating conditions permit so as to avoid fish mortality due to cold shock during the winter months (November through March). The basis for this requirement is to allow fish associated with the discharge-heated mixing zone for monitoring point 001A to acclimate to the decreasing temperature.

PART I**Section A. Limitations and Monitoring Requirements****14. Storm Water Pollution Prevention Plan**

The permittee is authorized to discharge storm water associated with industrial activities as defined in 40 CFR 122.26(b)(14). These storm water discharges shall be controlled in accordance with the requirements of this special condition. The permittee has developed and implemented a Storm Water Pollution Prevention Plan (plan). The permittee shall continue implementation of the plan for maximum control of significant materials (as defined in Part I.A.14.i.) so that storm water discharges will not cause a violation of the Water Quality Standards. The plan shall be routinely reviewed and updated in accordance with the requirements of this Special Condition.

a. Source Identification

To identify potential sources of significant materials that can enter storm water and subsequently be discharged from the facility, the plan shall, at a minimum, include the following:

- 1) A site map identifying the following: buildings and other permanent structures; storage or disposal areas for significant materials; secondary containment structures; storm water discharge outfalls (numbered for reference); location of storm water inlets contributing to each outfall; location of NPDES permitted discharges other than storm water; outlines of the drainage areas contributing to each outfall; structural runoff controls or storm water treatment facilities; areas of vegetation; areas of exposed and/or erodible soils; impervious surfaces (roofs, asphalt, concrete); name and location of receiving water(s); and areas of known or suspected impacts on surface waters as designated under Part 201 (Environmental Response) of the Michigan Act.
- 2) A list of all significant materials that could enter storm water. For each material listed, the plan shall include the following descriptions:
 - a) ways in which each type of material has been or has reasonable potential to become exposed to storm water (e.g., spillage during handling; leaks from pipes, pumps, and vessels; contact with storage piles; waste handling and disposal; deposits from dust or overspray, etc.);
 - b) identification of the outfall or outfalls through which the material may be discharged if released;
 - c) a listing of oil and materials on the Critical Materials Register that have been spilled or leaked over the three (3) years prior to the completion of the plan; the date, volume and exact location of release; and the action taken to clean up the material and/or prevent exposure to storm water runoff or contamination of surface waters of the state. Any release that occurs after the plan has been developed shall be controlled in accordance with the plan and is cause for the plan to be updated as appropriate within 14 calendar days of obtaining knowledge of the spill or loss; and
 - d) a summary of existing storm water discharge sampling data (if available) describing pollutants in storm water discharges associated with industrial activity at the facility. This summary shall be accompanied by a description of the suspected source(s) of the pollutants detected.
- 3) An evaluation of the reasonable potential for contribution of significant materials to runoff from at least the following areas or activities: loading, unloading, and other material handling operations; outdoor storage, including secondary containment structures; outdoor manufacturing or processing activities; significant dust or particulate generating processes; discharge from vents, stacks and air emission controls; on-site waste disposal practices; maintenance and cleaning of vehicles, machines and equipment; sites of exposed and/or erodible soil; sites of environmental contamination listed under Part 201 (Environmental Response) of the Michigan Act; areas of significant material residue; and other areas where storm water may contact significant materials.

PART I**Section A. Limitations and Monitoring Requirements****b. Preventive Measures and Source Controls, Non-Structural**

To prevent significant materials from contacting storm water at the source, the plan shall, at a minimum, include the following non-structural controls:

- 1) Description of a program for routine preventive maintenance which includes requirements for inspection and maintenance of storm water management and control devices (e.g., cleaning of oil/water separators and catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters. A log of the inspection and corrective actions shall be maintained on file by the permittee, and shall be retained in accordance with Part I.A.14.f.
- 2) A schedule for comprehensive site inspection to include visual inspection of equipment, plant areas, and structural pollution prevention and treatment controls to be performed at least once every six (6) months. A report of the results of the comprehensive site inspection shall be prepared and retained in accordance with Part I.A.14.f. The report shall identify any incidents of non-compliance with the plan. If there are no reportable incidents of non-compliance, the report shall contain a certification that the facility is in compliance with this plan.
- 3) A description of good housekeeping procedures to maintain a clean, orderly facility.
- 4) A description of material handling procedures and storage requirements for significant materials. Equipment and procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The procedures shall identify measures to prevent the spilled materials from being discharged into storm water. The plan may include, by reference, requirements of either a Pollution Incident Prevention Plan (PIPP) prepared in accordance with the Part 5 Rules (Rules 323.1151 through 323.1169 of the Michigan Administrative Code); a Hazardous Waste Contingency Plan prepared in accordance with 40 CFR 264 and 265 Subpart D, as required by Part 111 of the Michigan Act; or a Spill Prevention Control and Countermeasure (SPCC) plan prepared in accordance with 40 CFR 112.
- 5) Identification of areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall also identify measures used to control soil erosion and sedimentation.
- 6) A description of employee training programs which will be implemented to inform appropriate personnel at all levels of responsibility of the components and goals of the plan. The plan shall identify periodic dates for such training.
- 7) Identification of significant materials expected to be present in storm water discharges following implementation of non-structural preventative measures and source controls.

c. Structural Controls for Prevention and Treatment

Where implementation of the measures required by Part I.A.14.b. does not control storm water discharges in accordance with Water Quality Standards in Part I.A.14.h., the plan shall provide a description of the location, function, and design criteria of structural controls for prevention and treatment. Structural controls may be necessary:

- 1) to prevent uncontaminated storm water from contacting or being contacted by significant materials, and/or
- 2) if preventive measures are not feasible or are inadequate to keep significant materials at the site from contaminating storm water. Structural controls shall be used to treat, divert, isolate, recycle, reuse or otherwise manage storm water in a manner that reduces the level of significant materials in the storm water and provides compliance with the Water Quality Standards in accordance with Part I.A.14.h.

d. Keeping Plans Current

- 1) The permittee shall review the plan on or before September 22 of each year, and maintain written summaries of the reviews. Based on the review, the permittee shall amend the plan as needed to ensure continued compliance with the terms and conditions of this permit.

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

2) The plan shall also be updated or amended whenever changes or spills at the facility increase or have the potential to increase the exposure of significant materials to storm water, or when the plan is determined by the permittee or the Jackson District Supervisor of the Surface Water Quality Division to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Updates based on increased activity at the facility shall include a description of how the permittee intends to control any new sources of significant materials or respond to and prevent spills in accordance with the requirements of Parts I.A.14.a., I.A.14.b., and I.A.14.c.

3) The Jackson District Supervisor or authorized representative may notify the permittee at any time that the plan does not meet minimum requirements. Such notification shall identify why the plan does not meet minimum requirements. The permittee shall make the required changes to the plan within 30 days after such notification from the Jackson District Supervisor or authorized representative, and shall submit to the Jackson District Supervisor a written certification that the requested changes have been made.

e. **Certified Storm Water Operator Update**

If the certified operator has changed or an additional certified storm water operator is added, the permittee shall provide the name and certification number of the new operator to the Jackson District Supervisor. The new operator shall review and sign the plan.

f. **Signature and Plan Review**

1) The plan shall be signed by the certified storm water operator and by either the permittee or an authorized representative in accordance with 40 CFR 122.22. The plan shall be retained on site of the facility that generates the storm water discharge.

2) The permittee shall make plans, reports, log books, runoff quality data, and supporting documents available upon request to the Jackson District Supervisor of the Surface Water Quality Division or authorized representative.

g. **Record Keeping**

The permittee shall maintain records of all inspection and maintenance activities. Records shall also be kept describing incidents such as spills or other discharges that can affect the quality of storm water runoff. All such records shall be retained for three (3) years.

h. **Water Quality Standards**

At the time of discharge, there shall be no violation of the Water Quality Standards in the receiving waters as a result of this discharge. This requirement includes, but is not limited to, the following conditions:

1) In accordance with Rule 323.1050 of the Water Quality Standards, the receiving waters shall not have any of the following unnatural physical properties in quantities which are or may become injurious to any designated use: unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge.

2) 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 the Jackson District Supervisor of the Surface Water Quality Division followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.

i. **Significant Materials**

Significant Materials means any material which could degrade or impair water quality, including but not limited to: raw materials; fuels; salt; solvents; detergents; plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; 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); any material on the Critical Materials Register pursuant to Section 3111 of the Michigan Act; Hazardous Wastes as defined in Part 111 of the Michigan Act; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

PART I

Section A. Limitations and Monitoring Requirements

- j. **Prohibition of Non-storm Water Discharges**
 Discharges of material other than storm water shall be in compliance with an NPDES permit issued for the discharge. Storm water shall be defined to include the following non-storm water discharges provided pollution prevention controls for the non-storm water component are identified in the plan: discharges from fire hydrant flushing, potable water sources including water line flushing, fire system test water, irrigation drainage, lawn watering, routine building wash down which does not use detergents or other compounds, pavement wash water where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material have been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated groundwater, and foundation or footing drains where flows are not contaminated with process materials such as solvents. Discharges from fire fighting activities are authorized by this permit, but do not have to be identified in the plan.

15 Corps of Engineers

The issuance of this permit does not negate the authority of the Corps of Engineers to assess the permittee costs incurred by the Corps in dredging materials attributable to the permittee's discharge.

Preventing Pollution is the Best Solution

The Michigan Department of Environmental Quality (DEQ) 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

The DEQ is helping Michigan's industries save money, reduce waste and protect our environment through pollution prevention. DEQ 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. For more information, contact the Michigan Department of Environmental Quality, Environmental Assistance Division, at 1-800-662-9278 or visit our homepage at <http://www.deq.state.mi.us>

PART II

Section A. Definitions

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

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.

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

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.

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

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

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

Department means the Michigan Department of Environmental Quality.

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

District Supervisor: The Jackson District Supervisor of the Surface Water Quality Division is located at the Jackson District Office-DEQ, Surface Water Quality Division, 301 East Louis Glick Highway, Jackson, Michigan 49201-1556. Telephone 517-780-7690

Division of Health Facility Services – Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services mailing address is P.O. Box 30195, Lansing, Michigan 48909.

Drinking Water and Radiological Protection Division – Environmental Health, Michigan Department of Environmental Quality mailing address is P.O. Box 30630, Lansing, Michigan 48909-8130.

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.

PART II

Section A. Definitions

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

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

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

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

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

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

LC₅₀ means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

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

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

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

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

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

PART II

Section A. Definitions

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

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

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

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

POTW is a publicly owned treatment works.

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

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

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

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

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)).

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

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

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

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

PART II

Section A. Definitions

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

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

PART II**Section B. Monitoring Procedures****1. Representative Samples**

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

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants). For parameters not specified in the permit or covered by the regulations, test procedures shall be submitted for approval to the Jackson District Supervisor of the Surface Water Quality Division.

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

3. Instrumentation

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

4. Recording Results

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

5. Records Retention

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

PART II**Section C. Reporting Requirements****1. Start-up Notification**

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Jackson District Supervisor of the Surface Water Quality Division within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

2. Submittal Requirements for Self-Monitoring Data

Unless instructed on the effluent limits page to conduct "retained self-monitoring," the permittee shall submit self-monitoring data on the Environmental Protection Agency's Discharge Monitoring Report (DMR) forms (monthly summary information) and the Department's Daily Discharge Monitoring Report forms (daily information) to PCS-Data Entry, Surface Water Quality Division, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773, for each calendar month of the authorized discharge period(s). The forms shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period(s).

Alternative Daily Discharge Monitoring Report formats may be used if they provide equivalent reporting details and are approved by the Jackson District Supervisor of the Surface Water Quality Division. For information on electronic submittal of this information, contact the Jackson District Supervisor.

3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Surface Water Quality Division, Michigan Department of Environmental Quality (in the case of mobile home parks, campgrounds, marinas and schools, to the staff of the Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality, or, in the case of hospitals, nursing homes and extended care facilities, to the staff of the Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services). Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

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

4. Additional Monitoring by Permittee

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

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

5. Compliance Dates Notification

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

PART II

Section C. Reporting Requirements

6. Noncompliance Notification

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

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

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

7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Jackson District Supervisor of the Surface Water Quality Division at 517-780-7690, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

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

8. Upset Noncompliance Notification

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

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

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

PART II**Section C. Reporting Requirements****9. Bypass Prohibition and Notification**

- a. Bypass Prohibition - Bypass is prohibited unless:
- 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
 - 3) the permittee submitted notices as required under Part II.C.9.b. or Part II.C.9.c. below.
- b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Jackson District Supervisor of the Surface Water Quality Division, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Jackson District Supervisor. The Jackson District Supervisor may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in Part II.C.9.a. above.
- c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Jackson District Supervisor of the Surface Water Quality Division of an unanticipated bypass by telephone at 517-780-7690 (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Jackson District Supervisor of the Surface Water Quality Division, and at additional times as directed by the Jackson District Supervisor. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Jackson District Supervisor.
- e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.C.9.a., Part II.C.9.b., Part II.C.9.c., and Part II.C.9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10 of this permit.
- f. Definitions
- 1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - 2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

PART II**Section C. Reporting Requirements****10. Notification of Changes in Discharge**

The permittee shall notify the Jackson District Supervisor of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application submitted on April 12, 1999 as amended through December 27, 1999. Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

11. Changes in Facility Operations

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

12. Bioaccumulative Chemicals of Concern (BCC)

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

13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Jackson District Supervisor of the Surface Water Quality Division 30 days prior to the actual transfer of ownership or control.

PART II

Section D. Management Responsibilities

1. Duty to Comply

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

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

2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Michigan Department of Environmental Quality, as required by Sections 3110 and 4104 of the Michigan Act.

3. Facilities Operation

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

4. Power Failures

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

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

5. Adverse Impact

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

6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of oils, or other polluting materials in accordance with the requirements of the Part 5 Rules (Rules 323.1151 through 323.1169 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the Michigan Act.

PART II**Section D. Management Responsibilities****7. Waste Treatment Residues**

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

8. Right of Entry

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

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

9. Availability of Reports

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

PART II**Section E. Activities Not Authorized by This Permit****1. Discharge to the Groundwaters**

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. Facility Construction

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

3. Civil and Criminal Liability

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

4. Oil and Hazardous Substance Liability

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

5. State Laws

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

6. Property Rights

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