

**Detroit Edison**



April 21, 2009  
NRC-09-0021

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: National Pollutant Discharge Elimination System (NPDES)  
Permit Renewal

This letter transmits a copy of the National Pollutant Discharge Elimination System (NPDES) application for renewal of permit number MI0037028, in accordance with Fermi 2 Facility Operating License, NPF-43, Appendix B, Section 3.2. The application for renewal was submitted to the Michigan Department of Environmental Quality Water Division.

There are no commitments included in this letter.

Should you have any questions or require additional information, please contact me at (734) 586-5076.

Sincerely,



Rodney W. Johnson  
Manager, Nuclear Licensing

Enclosure

cc: NRC Project Manager  
NRC Resident Office  
Reactor Projects Chief, Branch 4, Region III  
Regional Administrator, Region III  
Supervisor, Electric Operators,  
Michigan Public Service Commission

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NER

**Enclosure 1  
to  
NRC-09-0021**

**National Pollutant Discharge Elimination System (NPDES)  
Renewal Application for Permit Number MI0037028**

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION I - General Information

Section I shall be completed by all permit applicants. Instructions for completing Section I, Pages 1 and 2, are on Page 2 of the Appendix. To submit additional information, see Page ii, Item 3.

<b>Water Bureau Use Only</b>  Receipt #: _____  Permit ID #: _____	<b>Cashier Use Only: 37000-40535-9412-481000-00</b>  <div style="height: 80px;"></div>
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PLEASE TYPE OR PRINT

<b>1</b>	NPDES PERMIT NUMBER MI0037028											
<b>2. APPLICANT</b>	Applicant Name DTE Energy  Address One Energy Plaza  Address 2 or P.O. Box Room 655 G.O.  City Detroit  State Michigan  ZIP Code 48226  Telephone (with area code) (313) 235-8704  FAX (with area code) (313) 235-5018  Applicant Web Address www.dteenergy.com											
<b>3. FACILITY</b>	Facility Name 1 Fermi 2 Power Plant  Facility Name 2  Facility Name 3  Street Address (do not use a P.O. Box Number) 6400 North Dixie Highway  City Newport  State Michigan  ZIP Code 48166  Telephone (with area code) (734) 586-5263  FAX (with area code)  Facility Web Address											
<b>4. CONTACTS</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; vertical-align: top;"> <input checked="" type="checkbox"/> Application Contact  <input type="checkbox"/> Facility Contact  <input type="checkbox"/> Discharge Monitoring Reports  <input checked="" type="checkbox"/> Storm Water Billing  <input type="checkbox"/> Biosolids Billing  <input checked="" type="checkbox"/> NPDES Annual Billing         </td> <td style="width: 45%; border-bottom: 1px solid black; padding: 5px;">           First Name            Mary             Title            Senior Engineer - Environmental             Address 1            One Energy Plaza             City            Detroit             State            Michigan             ZIP Code            48226             Telephone (with area code)            (313) 235-8704             FAX (with area code)            (313) 235-5018             e-mail address            hanamj@dteenergy.com         </td> <td style="width: 30%; border-bottom: 1px solid black; padding: 5px;">           Last Name            Hana             Business            DTE Energy Corporate Services, LLC             Address 2            Room 655 G.O.             State            Michigan             ZIP Code            48226             e-mail address            hanamj@dteenergy.com         </td> </tr> <tr> <td style="vertical-align: top;"> <input type="checkbox"/> Application Contact  <input checked="" type="checkbox"/> Facility Contact  <input type="checkbox"/> Discharge Monitoring Reports  <input type="checkbox"/> Storm Water Billing  <input type="checkbox"/> Biosolids Billing  <input type="checkbox"/> NPDES Annual Billing         </td> <td style="border-bottom: 1px solid black; padding: 5px;">           First Name            Joseph             Title            Site Vice President -Nuclear Power Plant             Address 1            6400 North Dixie Highway             City            Newport             State            Michigan             ZIP Code            48166             Telephone (with area code)            (734) 586-5910             FAX (with area code)            (734) 586-4172             e-mail address            plonaj@dteenergy.com         </td> <td style="border-bottom: 1px solid black; padding: 5px;">           Last Name            Plona             Business            DTE Energy - Fermi 2 Power Plant             Address 2            210 Fermi 2 NOC             State            Michigan             ZIP Code            48166             e-mail address            plonaj@dteenergy.com         </td> </tr> <tr> <td style="vertical-align: top;"> <input type="checkbox"/> Application Contact  <input type="checkbox"/> Facility Contact  <input checked="" type="checkbox"/> Discharge Monitoring Reports  <input type="checkbox"/> Storm Water Billing  <input type="checkbox"/> Biosolids Billing  <input type="checkbox"/> NPDES Annual Billing         </td> <td style="padding: 5px;">           First Name            Valerie             Title            Senior Engineer - Environmental             Address 1            6400 North Dixie Highway             City            Newport             State            Michigan             ZIP Code            48166             Telephone (with area code)            (734) 586-5577             FAX (with area code)            (734) 586-4208             e-mail address            byrdv@dteenergy.com         </td> <td style="padding: 5px;">           Last Name            Byrd             Business            DTE Energy Corporate Services, LLC             Address 2            200 Fermi 2 TAC             State            Michigan             ZIP Code            48166             e-mail address            byrdv@dteenergy.com         </td> </tr> </table>			<input checked="" type="checkbox"/> Application Contact <input type="checkbox"/> Facility Contact <input type="checkbox"/> Discharge Monitoring Reports <input checked="" type="checkbox"/> Storm Water Billing <input type="checkbox"/> Biosolids Billing <input checked="" type="checkbox"/> NPDES Annual Billing	First Name Mary  Title Senior Engineer - Environmental  Address 1 One Energy Plaza  City Detroit  State Michigan  ZIP Code 48226  Telephone (with area code) (313) 235-8704  FAX (with area code) (313) 235-5018  e-mail address hanamj@dteenergy.com	Last Name Hana  Business DTE Energy Corporate Services, LLC  Address 2 Room 655 G.O.  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Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028
--------------------------------------	----------------------------------

5. PERMIT ACTION REQUESTED (Check one box only) - Instructions for this item are on Page 2 of the Appendix.

- ☐ **NEW USE:** A proposed discharge.  
☐ **EXISTING DISCHARGE** that is currently unpermitted.  
☒ **REISSUANCE** of current permit.  
☐ **MODIFICATION** of current permit. Attach a description of the proposed modification.

**Note:** Applications for **New Use** discharges, **Existing Discharges** that are currently unpermitted, and for either **Reissuance** or **Modification** that include an increased loading of pollutants to the receiving water are required to submit a Rule 98 Demonstration with the Application. See Item 6.

6. RULE 98 - ANTIDEGRADATION REQUIREMENTS - Instructions for this item are on Page 2 of the Appendix.

In accordance with Rule 323.1098 of the Michigan Water Quality Standards, the applicant is required to submit an Antidegradation Demonstration for any new or increased loading of pollutants to the surface waters of the state. An Antidegradation Demonstration must contain the information specified in Rule 1098, outlined in the Antidegradation section of the Appendix. For assistance in completing this item, contact the Permits Section.

Will this discharge be an increased loading of pollutants to the surface waters of the state? ☐ Yes, continue below. ☒ No.

- ☐ Antidegradation Demonstration provided. ☐ Increased loading of pollutants is exempt from Antidegradation Demonstration as indicated below:
- ☐ A short-term (weeks to months) or temporary lowering of water quality.
  - ☐ Bypasses that are not prohibited by regulations set forth in 40 CFR §122.41(m).
  - ☐ Response actions undertaken to alleviate a release of pollutants into the environment that may pose an imminent and substantial danger to the public health or welfare.
  - ☐ Discharges of pollutant quantities from the intake water at a facility if the intake and discharge are to the same body of water.
  - ☐ Increases in flow, if the increase is within the design flow of the facility, it is not specifically authorized in the current permit, and there is no significant change expected in the characteristics of the wastewater collected.
  - ☐ Intermittent increased loading related to wet-weather conditions.
  - ☐ New or increased loading due to MDEQ-approved controls related to wet-weather conditions.
  - ☐ Discharges authorized by Certificates of Coverage and Notices of Coverage.
  - ☐ Increased loadings within the authorized levels of a limit in an existing control document, except those loadings that result from actions by the permittee that would otherwise require submittal of an increased use request.
  - ☐ Increased loadings of a pollutant which do not involve Bioaccumulative Chemicals of Concern (BCC) and which use less than 10 percent of the unused loading capacity that exists at the time of the request.

7. ADDITIONAL FACILITY LOCATION INFORMATION - Instructions for this item are on Page 2 of the Appendix.

A	Local Unit of Government (LUG) Frenchtown Charter Township	LUG e-mail address comments@frenchtownchartertp.org						
B	County Monroe	Township Frenchtown						
C	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Town T6S</td> <td style="width: 25%;">Range R10E</td> <td style="width: 25%;">Section 21</td> <td style="width: 25%;">¼</td> </tr> </table>	Town T6S	Range R10E	Section 21	¼	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">¼, ¼</td> <td style="width: 50%;">Private (French) Land Claim</td> </tr> </table>	¼, ¼	Private (French) Land Claim
Town T6S	Range R10E	Section 21	¼					
¼, ¼	Private (French) Land Claim							
D	Latitude 41 deg. 57' 45"	Longitude 83 deg. 15' 30"						

8. CERTIFIED OPERATOR

Does the facility have an MDEQ-certified operator? ☒ Yes ☐ No

Instructions for this item are

on Page 2 of the Appendix.

First Name Gregory	Last Name Mulleavy		
Certification Number W6115	Certification Classification(s) A-1d, A-1h, B-2a, B-2c		
Address 1 6400 North Dixie Highway	Address 2 110 AIB		
City Newport	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">State Michigan</td> <td style="width: 67%;">Zip Code 48166</td> </tr> </table>	State Michigan	Zip Code 48166
State Michigan	Zip Code 48166		
Telephone Number (734) 586-5039	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Fax Number</td> <td style="width: 67%;">e-mail address mulleavyg@dteenergy.com</td> </tr> </table>	Fax Number	e-mail address mulleavyg@dteenergy.com
Fax Number	e-mail address mulleavyg@dteenergy.com		

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028
--------------------------------------	----------------------------------

9. OTHER ENVIRONMENTAL PERMITS

Provide the information requested below for any other federal, state, or local environmental permits in effect or applied for at the time of submittal of this Application Form, including, but not limited to, permits issued under any of the following programs: Air Pollution Control, Hazardous Waste Management, Wetlands Protection, Soil Erosion and Sedimentation Control, and other NPDES permits. To submit additional information, see Page ii, Item 3.

Issuing Agency	Permit or COC Number	Permit Type
MDEQ, Air Quality Division	462-99B	Permit to Install
MDEQ, GLMD	45-58-009-P	Part 325 G.L Sub. Lands
Monroe Metropolitan Water Pollution Control Facility	1020	Industrial User discharge
Office of Monroe County Drain Commissioner	4177	SESC
Dept. of the Army, US Army Corps of Engineers	88-001-040-8	Department of the Army

10. WATER FLOW DIAGRAM AND NARRATIVE DESCRIPTION

Provide a flow diagram (**using 8½" x 11" paper if possible**) showing the wastewater flow through the facility (from intake through discharge), including all processes, treatment units including any lagoons or ponds used for wastewater treatment or storage (identify treatment units that operate intermittently), and bypass piping, and include a narrative description that explains the diagram. Show all operations contributing wastewater and the locations of flow meters, chemical feeds, and monitoring and discharge points. The water balance shall show the daily average flow rates at the intake and discharge points, and approximate daily flow rates between treatment units, including influent and treatment rates. Use actual measurements whenever available, otherwise use the best estimate. Show all significant losses of water to products, atmosphere, and discharge. In addition, provide a flow diagram for any storm water discharges from secondary structures that are required by state or federal law, and for storm water runoff from any Site of Environmental Contamination, pursuant to Part 201 of the Michigan Act. **Do not send blueprints.**

**Municipal Facilities** - Include a narrative that briefly describes the history of the wastewater treatment facility and collection system, including the initial construction, the facility improvements that have been made, future plans for upgrade, the location of all constructed emergency overflows, and other pertinent information.

**Industrial and Commercial Facilities** - The line diagram shall include all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and storm water runoff. **Also include a narrative** that provides a brief description of the nature of the business and the manufacturing processes.

**ATTACH THIS INFORMATION TO THIS APPLICATION. PLEASE DO NOT BIND THIS INFORMATION.**

11. MAP OF FACILITY AND DISCHARGE LOCATION

Provide a detailed map on 8½" x 11" paper showing the location of the existing or proposed facility, wastewater and biosolid treatment system(s), and wastewater monitoring and discharge points into receiving waters (including bypasses). Include the exact location of the wastewater monitoring and discharge point(s) and all areas through which the discharge flows (e.g., wetlands, open drains, storm sewers), if applicable, between the discharge point and the receiving water. If the discharge is to a storm sewer, label the storm sewer and show its flow path to the receiving water. Also include the location of any water supply intakes or wells, and groundwater monitoring wells. This map shall be a United States Geological Survey quadrangle (7.5 minute series) or other map of comparable detail, scale, and quality (which shows surface water bodies, roads, bathing beaches, and other pertinent landmarks). **It is preferred that the minimum area this map shall encompass is approximately one mile beyond the property boundaries.**

**ATTACH THIS INFORMATION TO THIS APPLICATION.**

PLEASE TYPE OR PRINT

EQP 4659-A (Rev. 01/2009)

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028
--------------------------------------	----------------------------------

14. APPLICATION CERTIFICATION

Rule 323.2114(1-4), promulgated under the Michigan Act, requires that this Application must be signed as follows:

- A. For an organization, company, corporation, or authority, by a principal executive office, vice president, or higher.
- B. For a partnership, by a general partner.
- C. For a sole proprietor, by the proprietor.
- D. For a municipal, state, or other public facility, by a principal executive officer or ranking elected official (such as the mayor, village president, city or village manager, or clerk).

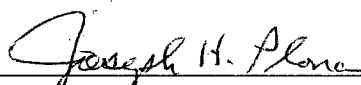
**Note:** If the signatory is not listed above, but is authorized to sign the Application, please provide documentation of that authorization.

*"I certify under penalty of law that this document and all attachments 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 having knowledge of violations."*

The last application for this facility was submitted on: March 31, 2004

I understand that my signature constitutes a legal agreement to comply with the requirements of the NPDES Permit. I certify under penalty of law that I possess full authority on behalf of the legal owner/permittee to sign and submit this application.

Print Name: Joseph H. Plona Title: Site Vice Pres. Fermi 2 Plant

Signature:  Date: 3-26-09

This completes Section I. Publicly-Owned Treatment Works (POTWs) discharging sanitary and industrial wastewater to the surface waters, and privately-owned treatment works discharging sanitary wastewater to the surface waters should complete Section II. Privately-owned treatment works include, but are not limited to, Mobile Home Parks, Campgrounds, Condominiums, Hotels and Motels, Nursing Homes, etc. All other applicants should complete Section III. If assistance is needed to complete this Application, contact the Permits Section.

**Permit Application Submittal Checklist**

Please confirm the following before submitting the Application Form:

- ☒ 1. Section I has been completed, including all diagrams, maps, and the treatment process narrative.
- ☐ 2. The Application has been signed as required above in Section I.14. (A.-D.) or a copy of the letter authorizing the signatory to sign the letter has been included, as appropriate.
- ☒ 3. Section II or Section III has been completed, including any additional information or submissions.
- ☒ 4. Section IV has been completed by any facility that discharges storm water.
- ☐ 5. Section V has been completed by any facility that is a Concentrated Animal Feeding Operation (CAFO).
- ☐ 6. A check or Money Order for the appropriate Application Fee has been made out to the "State of Michigan" and has been included with the Application submittal.

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION III - Industrial and Commercial Wastewater**

Section III is to be completed by all facilities classified as Industrial or Commercial facilities. Industrial and Commercial facilities include, but are not limited to, facilities that discharge or propose to discharge a wastewater generated by a production process, a service provided, or through a remediation project. Municipal and public facilities are not required to complete Section III (unless requesting authorization for discharges other than sanitary wastewater).

**A. Facility Information**

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028
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**1. BUSINESS INFORMATION** ☐ No Change From Last Application

A. Provide up to four Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) codes, in order of economic importance, which best describe the major products or services provided by this facility.

1. 4911	2.	3.	4.
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B. Indicate if this facility is a primary industry (refer to Table 1 of the Appendix to determine if this facility is a primary industry).

- ☒ Yes. This facility is a primary industry. Indicate the primary industry as identified in Table 1 of the Appendix: Steam Electric Power
- ☐ No. This facility is not a primary industry.

C. Is this facility a Concentrated Animal Feeding Operation (CAFO)?

- ☐ Yes. Continue with Section III.B.11.
- ☒ No.

**2. WATER SUPPLY AND DISCHARGE TYPE** ☐ No Change From Last Application

A. Identify all water sources entering the facility and treatment systems, and provide average flows. The volume may be estimated from water supply meter readings, pump capacities, etc. Provide the name of the source where appropriate (i.e., Grand River, Lake Michigan, City of Millpond). To submit additional information, see Page ii, Item 3.

	Name and Location of Source	Average Volume or Flow Rate	Units
Municipal Supply	Frenchtown Township	25	MGY
Surface Water Intake	Lake Erie	55	MGD
Private Well			
Other: _____	Precipitation	5	MGD

B. Identify water discharged by the facility and treatment systems, and provide average flows. If water is first used for one purpose and then is subsequently used for another purpose, indicate the type and amount of the last use. For example, if water is initially used for noncontact cooling water and then for process water, indicate the amount of process water. The amount of water from sources should approximate the amount of water usage. If they are different, provide an explanation.

	Average Flow Rate	Units		Average Flow Rate	Units
Process Wastewater	11,625	MGY	Sanitary Wastewater	34,000	GPD
Contact Cooling Water			Regulated Storm Water	2.6	MGD
Noncontact Cooling Water			High Pressure Test Water		
Groundwater Cleanup			Other: <u>Dredge Basin</u>	19	MGY

**Note:** For A and B above, indicate units as MGD (million gallons per day), MGY (million gallons per year), GPD (gallons per day), or other appropriate unit.



Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

Complete a separate Section III.B. - Outfall Information (Pages 19-24) - for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant				NPDES PERMIT NUMBER MI0037928		OUTFALL NUMBER 001	
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1. OUTFALL INFORMATION - Instructions for this item are on Page 3 of the Appendix. ☐ No Change From Last Application, Items A. - D.

A.	Receiving Water Ottawa Stony	Hydrologic Unit Code (HUC) 04100001				
B.	County Monroe	Township Frenchtown				
C.	Town T6S	Range R10E	Section 21	1/4 NE	1/4, 1/4 NW	Private (French) Land Claim)
D.	Latitude 41.964843			Longitude -83.254496		

E. Type of Wastewater Discharged (check all that apply to this outfall): ☐ No Change From Last Application, Item E:

☐ Contact Cooling

☐ Groundwater Cleanup

☐ Hydrostatic Pressure Test

☐ Noncontact Cooling Water

☒ Process Wastewater

☐ Sanitary Wastewater

☐ Storm Water - not regulated

☐ Storm Water - regulated

☐ Storm water subject to effluent guidelines (indicate under which category): \_\_\_\_\_

☐ Other - specify (see "Table 8 - Other Common Types of Wastewater" - in the Appendix) \_\_\_\_\_

F. What is the Maximum Design Flow Rate for this outfall: 45.1 MGD ☐ No Change From Last Application, Items F. - G.

G. What is the Maximum Authorized Discharge Flow for this outfall for the next five years?

Seasonal Dischargers \_\_\_\_\_ MGY (Continue with Item H).

Continuous Dischargers 45.1 MGD (Continue with Item I).

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From	Through	Actual Discharge Volume (MGD)	Annual Total

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? 24 Hours/Day 365 Days/Year

**Batch dischargers are required to provide the following additional information:**

Is there effluent flow equalization? ☐ Yes ☐ No

Batch Peak Flow Rate: \_\_\_\_\_ Number of batches discharged per day: \_\_\_\_\_

	Minimum	Average	Maximum
Batch Volume (gallons)			
Batch Duration (minutes)			

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 001
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2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE ☐ No Change From Last Application

Federal regulations require that different industries report different information, depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is in the Summary of Information to be reported by Industry Type section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five years, or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Closed-cycle Cooling System Blowdown

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Blowdown from the plant's Closed-cycle Condenser Cooling System cooling tower blowdown. Maximum expected discharge = 45 MGD.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Monitoring Point 001D - Processed Radwaste Wastewater

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Processed Radwaste wastewater from the plant floor drains and equipment drains. Maximum anticipated flow = 216,000 GPD

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Monitoring Point 001E - Chemical & non-chemical metal cleaning waste

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Treated chemical and/or non-chemical metal cleaning wastes from the condenser and heat exchanger cleaning. Maximum anticipated flow = 500,000 GPD.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: \_\_\_\_\_

B. SIC or NAICS code: \_\_\_\_\_

C. Describe the process and provide measures of production:

PROCESS INFORMATION

A. Name of the process contributing to the discharge: \_\_\_\_\_

B. SIC or NAICS code: \_\_\_\_\_

C. Describe the process and provide measures of production:

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 001
--------------------------------------	----------------------------------	-----------------------

3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS - Instructions for this item are on Page 4 of the Appendix.

☒ Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3.

**Please Note:** Rule 323.1062 allows the use of either *Escherichia Coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The MDEQ will use the indicator selected below in the permit issued based on this Application. ☐ Use *Escherichia Coli* as an indicator of disinfection. ☐ Use Fecal Coliform Bacteria as an indicator of disinfection.

Submitted via DMR's	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>		Biochemical Oxygen Demand – five day (BOD <sub>5</sub> )			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Chemical Oxygen Demand (COD)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Total Organic Carbon (TOC)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Ammonia Nitrogen (as N)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Total Suspended Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Phosphorus (as P)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Fecal Coliform Bacteria (report geometric means)		Maximum-7day	counts/100ml		Grab
<input type="checkbox"/>	NA	<i>Escherichia Coli</i> (report geometric means)		Maximum-7day	counts/100 ml		Grab
<input checked="" type="checkbox"/>	NA	Total Residual Chlorine			<input type="checkbox"/> mg/l <input type="checkbox"/> µg/l		Grab
<input type="checkbox"/>	NA	Dissolved Oxygen	<del>Do Not Use</del>	Minimum daily	mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		pH (report maximum and minimum of individual samples)	Minimum	Maximum	standard units		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		Temperature, Summer			<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		Temperature, Winter			<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Oil & Grease			mg/l		Grab

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION III - Industrial and Commercial Wastewater**

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 001
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**Note:** For questions on this page, Tables 1-5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing primary industries** that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New primary industries** that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

**Existing industries** that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

**New industries** that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing secondary industries, or existing primary industries** that discharge nonprocess wastewater, are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New secondary industries, or new primary industries** that propose to discharge nonprocess wastewater, are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

**All existing industries**, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

**New industries**, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

**New or existing industries**, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

**NOTE:** All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4 through 8), see Page ii, Item 5 for additional instructions.

Michigan Department of Environmental Quality- Water Bureau  
**SEWAGE DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater  
 B. Outfall Information

PLEASE TYPE OR PRINT

[illegible]

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 001
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the MDEQ under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

☒ Yes.

☐ No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

☒ Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1-8 shall be updated if it has changed since the previous approval.

☐ No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week, etc.)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbiocide, flocculant, etc.)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. 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)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7 and 8 above) is currently available in the Water Bureau files for the water treatment additives listed on the MDEQ's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on "Site Map," at the bottom of the right column under **Water Quality Monitoring**, click on "Assessment of Michigan Waters." Under the **Information** heading, click on the "Water Treatment Additive List." If you intend to use one of the water treatment additives on this list, only the information in Items 1 through 6 above needs to be submitted to the Water Bureau.

**Note:** The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive.

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the MDEQ in the last three years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" in the Appendix. N/A

11. CONCENTRATED ANIMAL FEEDING OPERATION (CAFO) INFORMATION. (See Section V – Concentrated Animal Feeding Operations.) To be completed by CAFOs only. For additional information, see "CAFO Guidance and Requirements" in the Appendix.

N/A

This completes Section III. Return the completed Application (Sections I, III, IV, and V, and any attachments) to one of the addresses on Page ii of this Application. If assistance is needed to complete this Application, contact the Permits Section.

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

Complete a separate Section III.B. - Outfall Information (Pages 19-24) - for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant				NPDES PERMIT NUMBER MI0037028		OUTFALL NUMBER 009	
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1. **OUTFALL INFORMATION** - Instructions for this item are on Page 3 of the Appendix. ☐ No Change From Last Application, Items A. - D.

A. Receiving Water Lake Erie via Swan Creek				Hydrologic Unit Code (HUC) 04100001			
B. County Monroe				Township Frenchtown			
C. Town T6S	Range R10E	Section 21	$\frac{1}{4}$ NE	$\frac{1}{4}$ , $\frac{1}{4}$ NW	Private (French) Land Claim		
D. Latitude 41.962590				Longitude -83.261856			

E. Type of Wastewater Discharged (check all that apply to this outfall): ☐ No Change From Last Application, Item E.

<input type="checkbox"/> Contact Cooling	<input type="checkbox"/> Groundwater Cleanup	<input type="checkbox"/> Hydrostatic Pressure Test	<input type="checkbox"/> Noncontact Cooling Water
<input checked="" type="checkbox"/> Process Wastewater	<input type="checkbox"/> Sanitary Wastewater	<input type="checkbox"/> Storm Water - not regulated	<input checked="" type="checkbox"/> Storm Water - regulated

☒ Storm water subject to effluent guidelines (indicate under which category): Steam Electric Power

☐ Other - specify (see "Table 8 - Other Common Types of Wastewater" - in the Appendix) \_\_\_\_\_

F. What is the Maximum Design Flow Rate for this outfall: 0.72 MGD ☐ No Change From Last Application, Items F. - G.

G. What is the Maximum Authorized Discharge Flow for this outfall for the next five years?

Seasonal Dischargers _____ MGY (Continue with Item H).
Continuous Dischargers <u>0.72</u> MGD (Continue with Item I).

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From	Through	Actual Discharge Volume (MGD)	Annual Total
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? 7 Hours/Day 12 Days/Year

**Batch dischargers are required to provide the following additional information:**

Is there effluent flow equalization? ☐ Yes ☐ No

Batch Peak Flow Rate: \_\_\_\_\_ Number of batches discharged per day: \_\_\_\_\_

	Minimum	Average	Maximum
Batch Volume (gallons)			
Batch Duration (minutes)			

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION III - Industrial and Commercial Wastewater**

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 009
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2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE ☐ No Change From Last Application

Federal regulations require that different industries report different information, depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is in the Summary of Information to be reported by Industry Type section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five years, or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Miscellaneous Low Volume Wastes

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Low volume wastes consisting of chemically treated cooling system water and other equipment drains. Maximum anticipated volume = 800,000 GPY. \*see note below\*

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Chemical Metal Cleaning Wastes

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Chemical metal cleaning wastes from the cleaning of piping or heat exchangers. Maximum anticipated volume = 500,000 GPY

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Non-chemical Metal Cleaning Wastes

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Non-chemical metal cleaning wastes from the cleaning of piping and heat exchangers. Maximum anticipated volume = 500,000 GPY

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Storm Water

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
Storm water from transformer containment areas and general storm drains. Maximum anticipated volume = 450,000 GPY.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: \_\_\_\_\_

B. SIC or NAICS code: \_\_\_\_\_

C. Describe the process and provide measures of production:

\*NOTE: This outfall consists of a 3 chambered unit. The effluent is manually pumped from the chamber(s) as required\*



Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 009
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3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS - Instructions for this item are on Page 4 of the Appendix.

☒ Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3.

**Please Note:** Rule 323.1062 allows the use of either *Escherichia Coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The MDEQ will use the indicator selected below in the permit issued based on this Application. ☐ Use *Escherichia Coli* as an indicator of disinfection. ☐ Use Fecal Coliform Bacteria as an indicator of disinfection.

Submitted via DMR's	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>		Biochemical Oxygen Demand – five day (BOD <sub>5</sub> )			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Chemical Oxygen Demand (COD)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Total Organic Carbon (TOC)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Ammonia Nitrogen (as N)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		Total Suspended Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Phosphorus (as P)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Fecal Coliform Bacteria (report geometric means)		Maximum-7day	counts/100ml		Grab
<input type="checkbox"/>	NA	<i>Escherichia Coli</i> (report geometric means)		Maximum-7day	counts/100 ml		Grab
<input checked="" type="checkbox"/>	NA	Total Residual Chlorine			<input type="checkbox"/> mg/l <input type="checkbox"/> µg/l		Grab
<input type="checkbox"/>	NA	Dissolved Oxygen	<b>Do Not Use</b>	Minimum daily	mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		pH (report maximum and minimum of individual samples)	Minimum	Maximum	standard units		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Temperature, Summer	ambient	ambient	<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Temperature, Winter	ambient	ambient	<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>	NA	Oil & Grease			mg/l		Grab

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 009
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**Note:** For questions on this page, Tables 1-5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing primary industries** that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New primary industries** that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

**Existing industries** that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

**New industries** that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing secondary industries, or existing primary industries** that discharge nonprocess wastewater, are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New secondary industries, or new primary industries** that propose to discharge nonprocess wastewater, are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

**All existing industries**, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

**New industries**, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

**New or existing industries**, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

**NOTE:** All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4 through 8), see Page ii, Item 5 for additional instructions.

### B. Outfall Information

### B. Outfall Information

[illegible]

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater  
 B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 009
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the MDEQ under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

☒ Yes.

☐ No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

☒ Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1-8 shall be updated if it has changed since the previous approval.

☐ No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week, etc.)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbiocide, flocculant, etc.)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. 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)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7 and 8 above) is currently available in the Water Bureau files for the water treatment additives listed on the MDEQ's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on "Site Map," at the bottom of the right column under **Water Quality Monitoring**, click on "Assessment of Michigan Waters." Under the **Information** heading, click on the "Water Treatment Additive List." If you intend to use one of the water treatment additives on this list, only the information in Items 1 through 6 above needs to be submitted to the Water Bureau.

**Note:** The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive.

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the MDEQ in the last three years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" in the Appendix.

\*SEE ATTACHMENT VIII

11. CONCENTRATED ANIMAL FEEDING OPERATION (CAFO) INFORMATION. (See Section V – Concentrated Animal Feeding Operations.) To be completed by CAFOs only. For additional information, see "CAFO Guidance and Requirements" in the Appendix.

N/A

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION III - Industrial and Commercial Wastewater**

**B. Outfall Information**

Complete a separate Section III.B. - Outfall Information (Pages 19-24) - for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 011
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1. OUTFALL INFORMATION - Instructions for this item are on Page 3 of the Appendix. ☐ No Change From Last Application, Items A. - D.

A.	Receiving Water Lake Erie via Swan Creek	Hydrologic Unit Code (HUC) -04100001												
B.	County Monroe	Township Frenchtown												
C.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Town</td> <td style="width: 15%;">Range</td> <td style="width: 15%;">Section</td> <td style="width: 15%;">1/4</td> <td style="width: 15%;">1/4, 1/4</td> <td style="width: 30%;">Private (French) Land Claim</td> </tr> <tr> <td>T6S</td> <td>R10E</td> <td>21</td> <td>NE</td> <td>NW</td> <td></td> </tr> </table>	Town	Range	Section	1/4	1/4, 1/4	Private (French) Land Claim	T6S	R10E	21	NE	NW		
Town	Range	Section	1/4	1/4, 1/4	Private (French) Land Claim									
T6S	R10E	21	NE	NW										
D.	Latitude 41.962590	Longitude -83.261856												

E. Type of Wastewater Discharged (check all that apply to this outfall): ☐ No Change From Last Application, Item E.

- |  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> Contact Cooling   | <input type="checkbox"/> Groundwater Cleanup | <input type="checkbox"/> Hydrostatic Pressure Test   | <input type="checkbox"/> Noncontact Cooling Water           |
| <input checked="" type="checkbox"/> Process Wastewater   | <input type="checkbox"/> Sanitary Wastewater | <input type="checkbox"/> Storm Water - not regulated | <input checked="" type="checkbox"/> Storm Water - regulated |
| <input checked="" type="checkbox"/> Storm water subject to effluent guidelines (indicate under which category): <u>Steam Electric Power Generation</u> |  |  |   |
| <input type="checkbox"/> Other - specify (see "Table 8 - Other Common Types of Wastewater" - in the Appendix) _____                                    |  |  |   |

F. What is the Maximum Design Flow Rate for this outfall: 15 MGD ☐ No Change From Last Application, Items F. - G.

G. What is the Maximum Authorized Discharge Flow for this outfall for the next five years?  
 Seasonal Dischargers \_\_\_\_\_ MGY (Continue with Item H).  
 Continuous Dischargers 15 MGD (Continue with Item I).

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From	Through	Actual Discharge Volume (MGD)	Annual Total
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? 24 Hours/Day 365 Days/Year

**Batch dischargers are required to provide the following additional information:**

Is there effluent flow equalization? ☐ Yes ☐ No

Batch Peak Flow Rate: \_\_\_\_\_ Number of batches discharged per day: \_\_\_\_\_

	Minimum	Average	Maximum
Batch Volume (gallons)			
Batch Duration (minutes)			

Michigan Department of Environmental Quality- Water Bureau  
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 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 011
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2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE ☐ No Change From Last Application

Federal regulations require that different industries report different information, depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is in the Summary of Information to be reported by Industry Type section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five years, or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Monitoring Point 011C - Oily Waste Treatment

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
 Low volume waste consisting of the effluent from the treatment of oily waste water from floor, equipment and yard drains. Maximum anticipated flow = 73,000 GPD. \*NOTE - Currently Inactive\*

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Service Water Screen Back Wash

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
 Intake screen and strainer backwash from general service pump house. Maximum anticipate flow = 7.0 MGD.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Storm Water

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
 Storm water from area near Fermi 1 Power plant main personnel parking lot. Maximum anticipated flow = 730,000 GPD.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Fire Protection Flushwater

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
 Fire fighting system pressurization water blowoff. Maximum anticipated flow = 3.6 MGD.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: General Service Water Flow Control

B. SIC or NAICS code: 4911

C. Describe the process and provide measures of production:  
 Fermi 1 Power Plant General Service Water System Blowoff. Maximum anticipated flow = 1.00 MGD

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PLEASE TYPE OR PRINT

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3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS - Instructions for this item are on Page 4 of the Appendix.

☒ Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3.

**Please Note:** Rule 323.1062 allows the use of either *Escherichia Coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The MDEQ will use the indicator selected below in the permit issued based on this Application. ☐ Use *Escherichia Coli* as an indicator of disinfection. ☐ Use Fecal Coliform Bacteria as an indicator of disinfection.

Submitted via DMR's	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>		Biochemical Oxygen Demand – five day (BOD <sub>5</sub> )			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Chemical Oxygen Demand (COD)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Total Organic Carbon (TOC)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Ammonia Nitrogen (as N)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		Total Suspended Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Phosphorus (as P)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Fecal Coliform Bacteria (report geometric means)		Maximum-7day	counts/100ml		Grab
<input type="checkbox"/>	NA	<i>Escherichia Coli</i> (report geometric means)		Maximum-7day	counts/100 ml		Grab
<input type="checkbox"/>	NA	Total Residual Chlorine			<input type="checkbox"/> mg/l <input type="checkbox"/> µg/l		Grab
<input type="checkbox"/>	NA	Dissolved Oxygen	Do Not Use	Minimum daily	mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		pH (report maximum and minimum of individual samples)	Minimum	Maximum	standard units		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Temperature, Summer	ambient	ambient	<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Temperature, Winter	ambient	ambient	<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>	NA	Oil & Grease			mg/l		Grab

Michigan Department of Environmental Quality- Water Bureau  
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B. Outfall Information

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FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 011
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**Note:** For questions on this page, Tables 1-5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing primary industries** that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New primary industries** that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

**Existing industries** that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

**New industries** that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing secondary industries, or existing primary industries** that discharge nonprocess wastewater, are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New secondary industries, or new primary industries** that propose to discharge nonprocess wastewater, are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

**All existing industries**, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

**New industries**, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

**New or existing industries**, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

**NOTE:** All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4 through 8), see Page ii, Item 5 for additional instructions.



PLEASE TYPE OR PRINT

EQP 4659-C (Rev. 01/2009)

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 011
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the MDEQ under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

☒ Yes.

☐ No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

☒ Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1-8 shall be updated if it has changed since the previous approval.

☐ No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week, etc.)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbiocide, flocculant, etc.)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. 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)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7 and 8 above) is currently available in the Water Bureau files for the water treatment additives listed on the MDEQ's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on "Site Map," at the bottom of the right column under **Water Quality Monitoring**, click on "Assessment of Michigan Waters." Under the **Information** heading, click on the "Water Treatment Additive List." If you intend to use one of the water treatment additives on this list, only the information in Items 1 through 6 above needs to be submitted to the Water Bureau.

**Note:** The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive.

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the MDEQ in the last three years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" in the Appendix.

N/A

11. CONCENTRATED ANIMAL FEEDING OPERATION (CAFO) INFORMATION. (See Section V – Concentrated Animal Feeding Operations.) To be completed by CAFOs only. For additional information, see "CAFO Guidance and Requirements" in the Appendix.

N/A

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater

B. Outfall Information

Complete a separate Section III.B. - Outfall Information (Pages 19-24) - for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant				NPDES PERMIT NUMBER MI0037028		OUTFALL NUMBER 013	
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1. OUTFALL INFORMATION - Instructions for this item are on Page 3 of the Appendix. ☐ No Change From Last Application, Items A. - D.

A. Receiving Water Lake Erie				Hydrologic Unit Code (HUC) 04100001			
B. County Monroe				Township Frenchtown			
C. Town T6S	Range R10E	Section 21	$\frac{1}{4}$ SE	$\frac{1}{4}$ , $\frac{1}{4}$ NW	Private (French) Land Claim		
D. Latitude 41.954244				Longitude -83.259636			

E. Type of Wastewater Discharged (check all that apply to this outfall): ☐ No Change From Last Application, Item E.

☐ Contact Cooling

☐ Groundwater Cleanup

☐ Hydrostatic Pressure Test

☐ Noncontact Cooling Water

☐ Process Wastewater

☐ Sanitary Wastewater

☐ Storm Water - not regulated

☐ Storm Water - regulated

☐ Storm water subject to effluent guidelines (indicate under which category): \_\_\_\_\_

☒ Other - specify (see "Table 8 - Other Common Types of Wastewater" - in the Appendix) Dredging Effluent

F. What is the Maximum Design Flow Rate for this outfall: 5.5 MGD ☐ No Change From Last Application, Items F. - G.

G. What is the Maximum Authorized Discharge Flow for this outfall for the next five years?

Seasonal Dischargers 450 MGY (Continue with Item H).

Continuous Dischargers \_\_\_\_\_ MGD (Continue with Item I).

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From	Through	Actual Discharge Volume (MGD)	Annual Total

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? 24 Hours/Day 24 Days/Year

**Batch dischargers are required to provide the following additional information:**

Is there effluent flow equalization? ☐ Yes ☐ No

Batch Peak Flow Rate: \_\_\_\_\_ Number of batches discharged per day: \_\_\_\_\_

	Minimum	Average	Maximum
Batch Volume (gallons)			
Batch Duration (minutes)			

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B. Outfall Information

PLEASE TYPE OR PRINT

<b>FACILITY NAME</b> Fermi 2 Power Plant	<b>NPDES PERMIT NUMBER</b> MI0037028	<b>OUTFALL NUMBER</b> 013
<p>2. <b>PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE</b> <span style="float: right;"><input type="checkbox"/> <b>No Change From Last Application</b></span></p> <p>Federal regulations require that different industries report different information, depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is in the Summary of Information to be reported by Industry Type section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five years, or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.</p>		
<p><b>PROCESS INFORMATION</b></p> <p>A. Name of the process contributing to the discharge: <u>Treatment of Dredge Spoils/Water Overflow</u></p> <p>B. SIC or NAICS code: <u>4911</u></p> <p>C. Describe the process and provide measures of production: Overflow from the settling of dredged materials from the lake bottom in the plant intake canal. Maximum anticipated flow = 450 MGY.</p>		
<p><b>PROCESS INFORMATION</b></p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		
<p><b>PROCESS INFORMATION</b></p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		
<p><b>PROCESS INFORMATION</b></p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		
<p><b>PROCESS INFORMATION</b></p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		

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B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 013
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3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS - Instructions for this item are on Page 4 of the Appendix.

☒ Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3.

**Please Note:** Rule 323.1062 allows the use of either *Escherichia Coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The MDEQ will use the indicator selected below in the permit issued based on this Application. ☐ Use *Escherichia Coli* as an indicator of disinfection. ☐ Use Fecal Coliform Bacteria as an indicator of disinfection.

Submitted via DMR's	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>		Biochemical Oxygen Demand – five day (BOD <sub>5</sub> )			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Chemical Oxygen Demand (COD)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Total Organic Carbon (TOC)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Ammonia Nitrogen (as N)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		Total Suspended Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Total Phosphorus (as P)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Fecal Coliform Bacteria (report geometric means)		Maximum-7day	counts/100ml		Grab
<input type="checkbox"/>	NA	<i>Escherichia Coli</i> (report geometric means)		Maximum-7day	counts/100 ml		Grab
<input type="checkbox"/>	NA	Total Residual Chlorine			<input type="checkbox"/> mg/l <input type="checkbox"/> µg/l		Grab
<input type="checkbox"/>	NA	Dissolved Oxygen	Do Not Use	Minimum daily	mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input checked="" type="checkbox"/>		pH (report maximum and minimum of individual samples)	Minimum	Maximum	standard units		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Temperature, Summer	ambient	ambient	<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>		Temperature, Winter	ambient	ambient	<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
<input type="checkbox"/>	NA	Oil & Grease			mg/l		Grab

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B. Outfall Information

PLEASE TYPE OR PRINT

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**Note:** For questions on this page, Tables 1-5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing primary industries** that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New primary industries** that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

**Existing industries** that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

**New industries** that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

**Existing secondary industries, or existing primary industries** that discharge nonprocess wastewater, are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

**New secondary industries, or new primary industries** that propose to discharge nonprocess wastewater, are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

**All existing industries**, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

**New industries**, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

**New or existing industries**, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

**NOTE:** All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4 through 8), see Page ii, Item 5 for additional instructions.

PLEASE TYPE OR PRINT

EQP 4659-C (Rev. 01/2009)

Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION III - Industrial and Commercial Wastewater  
 B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 013
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the MDEQ under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

☒ Yes.

☐ No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

☒ Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1-8 shall be updated if it has changed since the previous approval.

☐ No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week, etc.)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbiocide; flocculant, etc.)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. 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)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7 and 8 above) is currently available in the Water Bureau files for the water treatment additives listed on the MDEQ's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on "Site Map," at the bottom of the right column under **Water Quality Monitoring**, click on "Assessment of Michigan Waters." Under the **Information** heading, click on the "Water Treatment Additive List." If you intend to use one of the water treatment additives on this list, only the information in Items 1 through 6 above needs to be submitted to the Water Bureau.

**Note:** The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive.

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the MDEQ in the last three years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" in the Appendix.

N/A

11. CONCENTRATED ANIMAL FEEDING OPERATION (CAFO) INFORMATION. (See Section V – Concentrated Animal Feeding Operations.) To be completed by CAFOs only. For additional information, see "CAFO Guidance and Requirements" in the Appendix.

N/A



Michigan Department of Environmental Quality- Water Bureau  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION IV – Storm Water**

PLEASE TYPE OR PRINT

FACILITY NAME  
Fermi 2 Power Plant

NPDES PERMIT NUMBER  
MI0037028

**1. STORM WATER DISCHARGES**

Facilities that discharge storm water must provide the following information. (Please Note: The following discharges are also covered by storm water authorization, provided they are addressed in the facility's Storm Water Pollution Prevention Plan [SWPPP]): 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 waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents. **Unless otherwise specified, answer the following questions.**

A. Is the storm water from this facility discharged to the waters of the state either directly or through another conveyance? Note: If storm water is discharged to a municipal wastewater treatment system or a privately-owned activated sludge treatment system, check the "No" box.

- ☒ Yes.  
☐ No.

B. Is the facility identified in this application primarily engaged in an "industrial activity" as defined in 40 CFR 122.26(b)(14)?

- ☒ Yes.  
☐ No.

C. Are there any industrial activities or materials exposed to storm water at this facility? Storm water discharge requirements may be excluded from an NPDES permit when there are no industrial activities or materials exposed to storm water. To qualify, the applicant shall certify that the facility has met all the eligibility requirements to claim a condition of "no exposure". These requirements are found in the No-Exposure Certification form in the Appendix. This form is also available on the MDEQ's Internet Page. To access the form, go to <http://www.michigan.gov/deq>. In the left column click on WATER, click on Surface Water, click on Storm Water, in the middle column click on Industrial Program, then click on No-Exposure Certification.

- ☒ Yes.  
☐ No. Complete the No-Exposure Certification form in the Appendix and submit it with this Application.

D. Does this facility have a current and up-to-date SWPPP?

- ☒ Yes.  
☐ No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

E. Has the facility implemented the nonstructural controls described in the SWPPP?

- ☒ Yes.  
☐ No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

F. Have all the structural controls described in the SWPPP been constructed and put into operation?

- ☒ Yes.  
☐ No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

G. Does this facility have a certified industrial storm water operator who supervises the facility's storm water treatment and control measures included in the Storm Water Pollution Prevention Plan?

- ☒ Yes. Valerie Byrd 107392  
Storm Water Operator Name Certification Number  
☐ No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

H. Is any of the storm water discharged from (check all that apply):

- ☒ Secondary containment structures that are required by state or federal law. On a separate page, provide a list of the materials that are stored in this area.  
☐ Areas identified on Michigan's list of Sites of Environmental Contamination, pursuant to the Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 201 (formerly 307).

I. The storm water from this facility discharges to the following receiving water(s): Lake Erie, Swan Creek

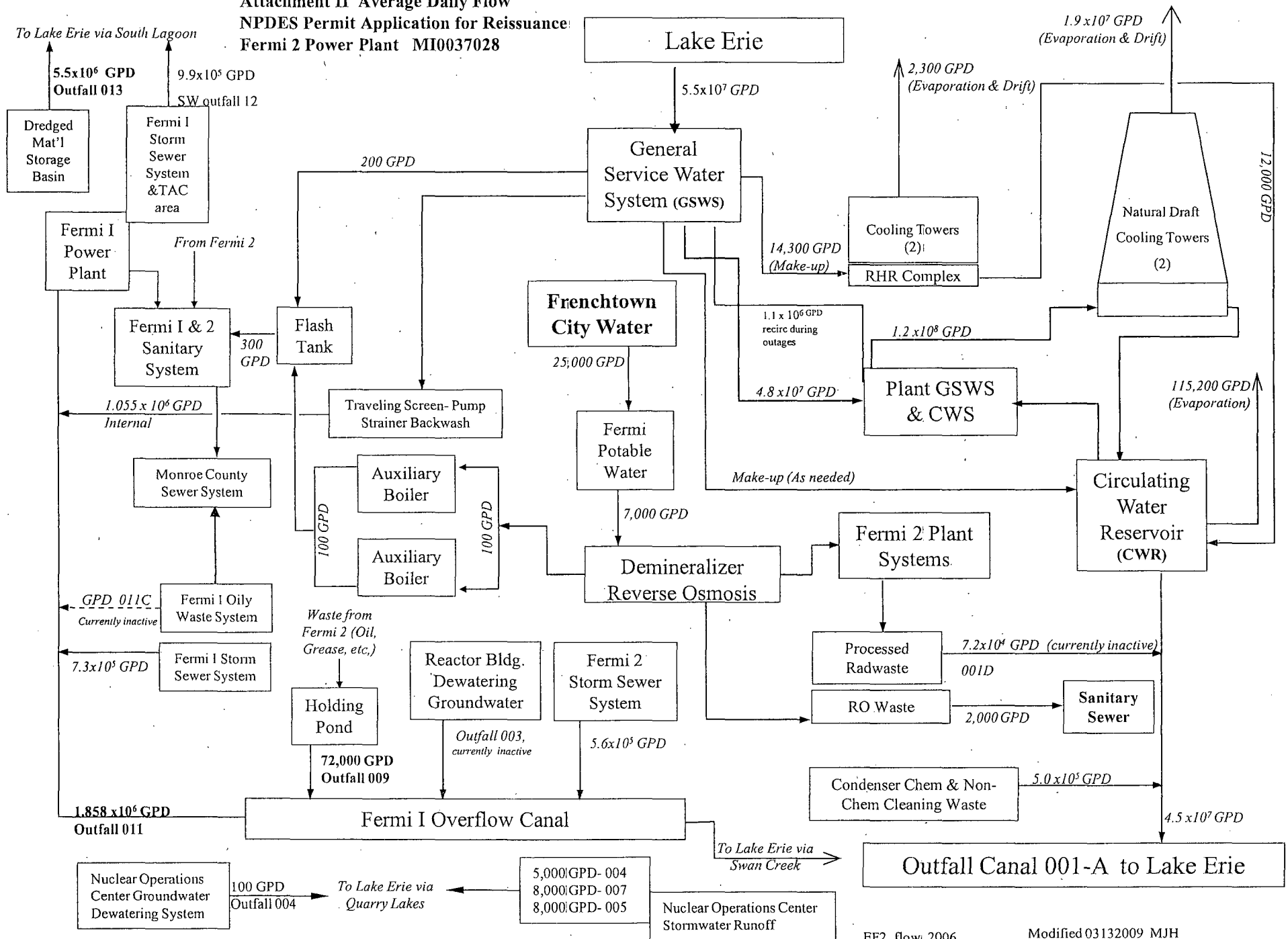
Please note that applicants should provide any sample data taken of the storm water discharge as an attachment. To submit additional information, see Page ii, Item 3.

**Detroit Edison, Fermi 2 Personnel**  
**Certifications with State of Michigan, Department of Environmental Quality**  
**March 16, 2009**

Attachment I  
NPDES Permit Application for Reissuance  
Fermi 2 Power Plant MI0037028

Name	Certificate #	A-1a	A-1b	A-1d	A-1h	A-1i	A-1j	A-2b	B-1b	B-2a	B-2c	Expiration
<b>Valerie S. Byrd</b>	I 07392					X						2009
	C 10174						X					2009
<b>Kyle Bogle</b>	W6093			X	X					X	X	2012
<b>Steven K. Labudda</b>	W2460		X		X						X	2011
<b>Gregory Mulleavy</b>	W6115			X	X					X	X	2012
<b>John Tansek</b>	W6149			X		X				X	X	2012
<b>John M. Yokom</b>	W3579		X	X	X				X	X	X	2011

Attachment II Average Daily Flow  
NPDES Permit Application for Reissuance  
Fermi 2 Power Plant MI0037028



### **Attachment III**

#### **NPDES Permit Application for Reissuance**

**Fermi 2 Power Plant      MI0037028**

#### **Narrative Description**

Fermi 2 Power Plant is a 1,150-megawatt electric General Electric Boiling Water Reactor 4 Nuclear Power Plant. The Fermi 2 power block is situated in the Northeast Quarter of a 1,120-acre site that is located approximately 8 miles east-northeast of Monroe, Michigan.

The water sources for the Fermi 2 Power Plant are municipal water supplied by Frenchtown Township water and lake water withdrawn from Lake Erie.

Water discharges from the plant as a result of electric power generation and support processes include: cooling tower blowdown, reverse osmosis wastes, chemical and non-chemical metal cleaning wastes, processed radwaste waste, low volume wastes, storm water runoff, treated oily wastewater, intake and strainer backwash water, firefighting system pressurization water, settled water from dredge material storage, and sanitary waste water.

Cooling tower blowdown, residual heat removal system service water, chemical and non-chemical metal cleaning wastes, and processed radwaste water are discharged from Outfall 001 to Lake Erie.

Storm water runoff, low volume wastes, and chemical and non-chemical metal cleaning wastes are discharged from Outfall 009 to Lake Erie via Swan Creek.

Treated oily waste water, firefighting system pressurization water, intake screen and strainer backwash water, and storm water are discharged from Outfall 011 to Lake Erie via Swan Creek.

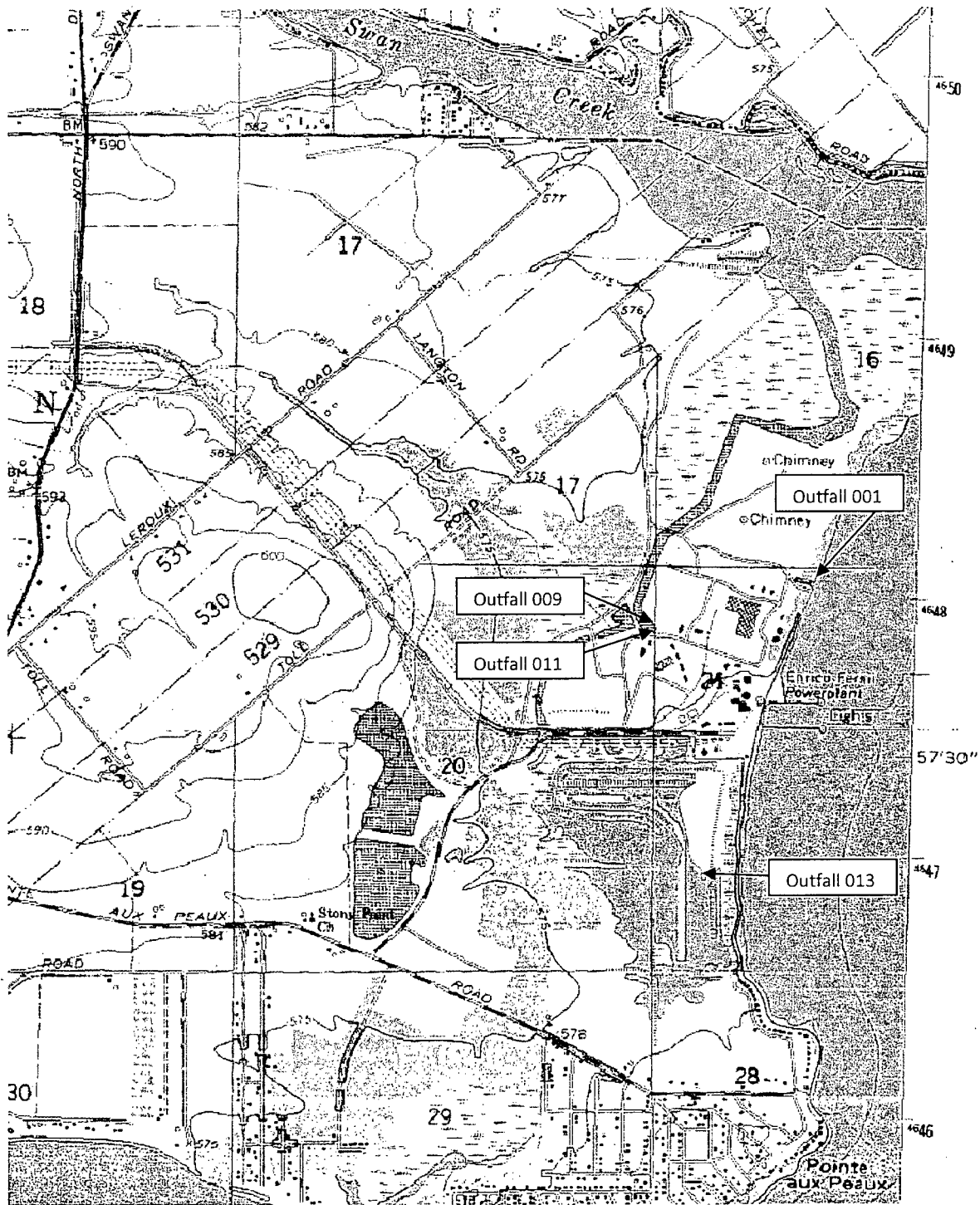
Settled water from the dredge material storage basin is discharged from Outfall 013 to Lake Erie.

Sanitary wastewater is composed of oil/water separator discharge water and plant domestic waste. This waste is collected in a holding tank and forwarded to the City of Monroe Municipal Waste Water Treatment Plant for treatment and disposal.

Attachment IV

NPDES Permit Application for Reissuance – March 16, 2009

Fermi 2 Power Plant MI0037028



2009 NPDES Permit  
Adjacent Property Owners

Attachment V  
NPDES Permit Application for Renewal  
Fermi 2 Power Plant MI0037028  
March 16, 2009

Last Name	First Name(s)	Mail Address	City	St	Zip
Achinger	Jeffery & Heather	5866 Pointe Aux Peaux	Newport	MI	48166
Baltrip	Susan & Scott	5168 Pointe Aux Peaux	Newport	MI	48166
Alexander	Michael & Julie	5944 Pointe Aux Peaux	Newport	MI	48166
Barczewski	James & Shelby	5701 Toll Rd	Newport	MI	48166
Bennett	Alice	14848 Kingston Dr	El Paso	TX	79927
Bodenmiller	Edward J (Catherine-Dec'd)	4771 Pointe Aux Peaux	Newport	MI	48166
Boerner	Lauren & Kelly	5884 Pointe Aux Peaux	Newport	MI	48166
Bondy	Eric & Robin	6211 Highland	Newport	MI	48166
Childress	Charles & Barbara	6170 Leroux	Newport	MI	48166
Gonzales	Shirley & Maria (C/O: Shirley)	3276 Chippewa	Monroe	MI	48162
Dellen	William M	3466 Parkwood	Monroe	MI	48162
Drummonds	Patricia	6148 Pointe Aux Peaux	Newport	MI	48166
MacDonald	Muriel R	1017 Riverbank	Lincoln Park	MI	48146
Fix	Bernice	6394 Leroux	Newport	MI	48166
Fix	Kevin & Wendy L Rev Trust	5038 Post Rd	Newport	MI	48166
US Fish & Wildlife Services	Bishop Henry Whipple Fed Bldg	1 Federal Dr	St Paul	MN	55111-4056
	C/O Lois A Lawson				
Popejoy	Robert G	PO Box 734	Punta Gorda	FL	33591
Frenchtown Charter Township	Supervisor	2744 Vivian	Monroe	MI	48162
Frenchtown Charter Township	Water Tower	2744 Vivian	Monroe	MI	48162
Holmes	Jimmy & Rebecca	6200 Langton	Newport	MI	48166
Jenkins	Thomas	4828 Elm	Newport	MI	48166
Robertson	Archie & Tina	5100 Pointe Aux Peaux	Newport	MI	48166
Kowalchuk	Helen	20621 Wedgewood	Grosse Pointe Woods	MI	48236
Langton	Valarian	6445 Leroux	Newport	MI	48166
Brazon	Corey A	6267 Highland	Newport	MI	48166
Lyon Sand & Gravel Co		8800 Dix Ave	Detroit	MI	48209
Rorke	Chasity & Horney Don III	5908 Pointe Aux Peaux	Newport	MI	48166
Manor, Gayle & Thelma	Brooks, Kenneth & H	5920 Pointe Aux Peaux	Newport	MI	48166
Masserant	Jerome & Janis	6255 Highland	Newport	MI	48166

2009 NPDES Permit  
Adjacent Property Owners

Masserant	Randy	6001 Toll Rd	Newport	MI	48166
Serokman	John	4981 Pointe Aux Peaux	Newport	MI	48166
McCarty	Gordon	5300 Pointe Aux Peaux	Newport	MI	48166
McCarty	Gordon	5194 Pointe Aux Peaux	Newport	MI	48166
Boles	Timothy J	5182 Pointe Aux Peaux	Newport	MI	48166
MI Dept of Natural Resources	Dept of Treasury	PO Box 30722	Lansing	MI	48909
MI Nature Association		326 E Grand River Ave	Williamston	MI	48895
Sterling	David L	5838 Pointe Aux Peaux	Newport	MI	48166
Moody	Jason	6233 Highland	Newport	MI	48166
Moran	Raymond & Linda	6511 Leroux	Newport	MI	48166
Carmack	Katherine & Robin	12600 Fessner	Carleton	MI	48117
Nowicki	Viola	25000 Rubin	Warren	MI	48089
Peer	Richard & Charlotte	5789 Newport South	Newport	MI	48166
Popejoy	Robert G	PO Box 734	Punta Gorda	FL	33951
McDevitt	Kay	2682 Nadeau	Monroe	MI	48162
Qassis	Nabih & Juliet	37119 Muirfield Dr.	Livonia	MI	48152
Sisung	James & Holly	5701 Post Rd	Newport	MI	48166
US Fish & Wildlife Services	Bishop Henry Whipple Fed Bldg	1 Federal Dr	St Paul	MN	55111-4056
	C/O Lois A Lawson				
Squire	Robert & Beth	5820 Pointe Aux Peaux	Newport	MI	48166
Styles	Eleanor	6191 Highland	Newport	MI	48166
VanWashenova	John & Delores	7982 South Newport	Newport	MI	48166
VanWashenova	Lawrence & Tina	2707 Steiner	Monroe	MI	48162
Tremblay	Robert & Lou Ann	5152 Pointe Aux Peaux	Newport	MI	48166
Young	David & Debra	4957 Raymond	Newport	MI	48166
International Transmission Co	ITC Transmission	27175 Energy Way	Novi	MI	48377
Carmack	Katherine & Robin	12600 Fessner	Carlton	MI	48117
Parker	Orval	5121 Pointe Aux Peaux	Newport	MI	48166
Nothnagel	Darlin Edward	4704 St. Clair St.	Newport	MI	48166
Ellison	Michael & Laurie	4702 Long	Newport	MI	48166
City of Monroe	Water Works	120 E. First	Monroe	MI	48161
Hathaway	Rodney	13542 Venetian	Monroe	MI	48161
MacDonald	Muriel R	1017 Riverbank	Lincoln Park	MI	48146
Newport Beach Marina	Thomas Petty C/O:Towne Mtg	700 Tower Dr Ste#110	Troy	MI	48098
US Fish & Wildlife Service	Bishop Henry Whipple Fed Bldg	1 Federal Dr	St Paul	MN	55111-4056
	C/O Lois A Lawson				
Flint	Jerry A & Cindy L	6577 Leroux	Newport	MI	48166

2009 NPDES Permit  
Adjacent Property Owners

Daum	Kevin F & Jaqueline E	6110 Leroux	Newport	MI	48166
Citimortgage		5280 Corporate Dr #1011	Frederick	MD	21703-8351
Gonzalez	Shirley & Maria (C/O: Maria)	3608 Navaho	Monroe	MI	48162
McPeck	Charlie	4778 Superior	Newport	MI	48166
MR Investments LLC	C/O Robert H Degraer	1555 Hollywood Drive	Monroe	MI	48162
McDevitt	Kay	2682 Nadeau Rd	Monroe	MI	48162
Stewart	Virgil & Rosalie	4780 St. Clair	Newport	MI	48166
Odom	Phyllis C	132 Boyce Dr	Brooklyn	MI	49230
Brogan	Christopher Lee	5670 Newport South	Newport	MI	48166
Rorke	Chasity & Don Horney III	5908 Pointe-Aux Peaux	Newport	MI	48166
Gonzalez	Maria & Shirley Gonzalez	3276 Chippewa	Monroe	MI	48166
Kopsi	Carl J	30020 Aspen Dr.	Flat Rock	MI	48134
Deweys Stony Point Assoc Inc		PO Box 66272	Newport	MI	48166
Stringham, Roy D	Ralston Lois C	6188 Highland	Newport	MI	48166
Ord	David H & Bonnie L Trust	4720 Long St	Newport	MI	48166
Kennedy, Debra K	Baker, Marilyn A & Qualey, John J	4507 Goddard	Newport	MI	48166
	C/O: Debra Kennedy				
Diehl	John H & Deborah L	4772 Long	Newport	MI	48166
Liedel	Thomas & Anna	4802 Long	Newport	MI	48166
Lane	Michael H	PO Box 173	Wyandotte	MI	48192
Seres	Lonny & Linda	4834 Long	Newport	MI	48166
Monroe Frenchtown Raw Water Supply Co-Partnership		120 E. First St	Monroe	MI	48161
Long Est Summer Resort Assoc	C/O Treasurer	4802 Long	Newport	MI	48166
McLaughlin	Michael & Bridget	6108 Pointe Aux Peaux	Newport	MI	48166
Laskey	Larry D	10623 Telegraph	Carleton	MI	48117
Yoas	Lowell & Alice	6060 Pointe Aux Peaux	Newport	MI	48166
Flippin	Todd D & Diana J	4690 N Lake Rd	Newport	MI	48166
Oliver	Roxanne D	3938 Lakeshore	Newport	MI	48166
Day	Christine R	6444 Trafalgar Dr	Canton	MI	48187



Attachment VI (a)

NPDES Permit Application for Reissuance

Fermi 2 Power Plant MI0037028

Outfall 001 Analyses



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Grab Day 1**  
Lab Sample ID: **0902360-02**  
Matrix: Waste Water

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/18/09 11:16  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50

### Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Chlorine, Total Residual (Field)	<0.015	0.015	mg/L	1	USEPA 330.1	02/18/09	FLD	0902356
Oxygen, Dissolved (Field)	7.12	0.10	mg/L	1	SM 4500-O G 20th	02/18/09	FLD	0902356
pH (Field)	8.23	1.00	pH Units	1	SM 4500-H B 20th	02/18/09	FLD	0902356
Temperature °C (Field)	20.7	0.1	°C	1	SM 2550 B 20th	02/18/09	FLD	0902356



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Grab Day 2**  
Lab Sample ID: **0902360-03**  
Matrix: Waste Water

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50

### Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Chlorine, Total Residual (Field)	<0.015	0.015	mg/L	1	USEPA 330.1	02/19/09	FLD	0902635
Oxygen, Dissolved (Field)	<b>5.88</b>	0.10	mg/L	1	SM 4500-O G 20th	02/19/09	FLD	0902356
pH (Field)	<b>8.51</b>	1.00	pH Units	1	SM 4500-H B 20th	02/19/09	FLD	0902356
Temperature °C (Field)	<b>16.3</b>	0.1	°C	1	SM 2550 B 20th	02/19/09	FLD	0902356
Cyanide, Available	<2.0	2.0	ug/L	1	USEPA OIA-1677	02/25/09	VAS	0902420
HEM: Oil & Grease	<5.00	5.00	mg/L	1	USEPA-1664A	02/26/09	LMA	0902384
Phenolics, Total	<50.0	50.0	ug/L	1	USEPA-420.1	02/26/09	INR	0902394



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Grab VOC Composite**  
Lab Sample ID: **0902360-04**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902456

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/25/09 By: JDM  
Analyzed: 02/25/09 By: JDM  
Analytical Batch: 9022632

### \*Volatile Organic Compounds by EPA Method 624

CAS Number	Analyte	Analytical Result	RL
107-02-8	Acrolein	<5.0	5.0
107-13-1	Acrylonitrile	<1.0	1.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<1.0	1.0
75-25-2	Bromoform	<1.0	1.0
74-83-9	Bromomethane	<1.0	1.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<10	10
67-66-3	Chloroform	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
124-48-1	Dibromochloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
542-75-6	1,3-Dichloropropene (Total)	<2.0	2.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
75-09-2	Methylene Chloride	<5.0	5.0
79-34-5	1,1,2,2-Tetrachloroethane	<1.0	1.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

#### Surrogates:

Dibromofluoromethane

#### % Recovery

98

#### Control Limits

88-115

Continued on next page

\*See Statement of Data Qualifications

Page 5 of 40

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Individual sample results relate only to the sample tested.

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Grab VOC Composite**  
Lab Sample ID: **0902360-04**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902456

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/25/09 By: JDM  
Analyzed: 02/25/09 By: JDM  
Analytical Batch: 9022632

### \*Volatile Organic Compounds by EPA Method 624 (Continued)

<i>Surrogates (Continued):</i>	<i>% Recovery</i>	<i>Control Limits</i>
<i>1,2-Dichloroethane-d4</i>	88	<i>81-116</i>
<i>Toluene-d8</i>	100	<i>87-113</i>
<i>4-Bromofluorobenzene</i>	100	<i>78-116</i>

\*See Statement of Data Qualifications



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Composite**  
Lab Sample ID: **0902360-07**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902493

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/27/09 By: DCG  
Analyzed: 03/02/09 By: ASC  
Analytical Batch: 9030318

### Polychlorinated Biphenyls (PCBs) by EPA Method 608

CAS Number	Analyte	Analytical Result	RL
12674-11-2	PCB-1016	<0.21	0.21
11104-28-2	PCB-1221	<0.21	0.21
11141-16-5	PCB-1232	<0.21	0.21
53469-21-9	PCB-1242	<0.21	0.21
12672-29-6	PCB-1248	<0.21	0.21
11097-69-1	PCB-1254	<0.21	0.21
11096-82-5	PCB-1260	<0.21	0.21

**Surrogates:**

Decachlorobiphenyl  
Tetrachloro-m-xylene

**% Recovery**

91  
59

**Control Limits**

45-134  
27-126



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Composite**  
Lab Sample ID: **0902360-07**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902425

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/26/09 By: DCG  
Analyzed: 03/02/09 By: DMC  
Analytical Batch: 9030346

### Semivolatile Organic Compounds by EPA Method 625

CAS Number	Analyte	Analytical Result	RL
83-32-9	Acenaphthene	<5.4	5.4
208-96-8	Acenaphthylene	<5.4	5.4
120-12-7	Anthracene	<5.4	5.4
92-87-5	Benzidine	<5.4	5.4
56-55-3	Benzo(a)anthracene	<5.4	5.4
50-32-8	Benzo(a)pyrene	<5.4	5.4
205-99-2	Benzo(b)fluoranthene	<5.4	5.4
207-08-9	Benzo(k)fluoranthene	<5.4	5.4
191-24-2	Benzo(g,h,i)perylene	<5.4	5.4
101-55-3	4-Bromophenyl Phenyl Ether	<5.4	5.4
85-68-7	Butyl Benzyl Phthalate	<5.4	5.4
59-50-7	4-Chloro-3-methylphenol	<5.4	5.4
111-91-1	Bis(2-chloroethoxy)methane	<5.4	5.4
111-44-4	Bis(2-chloroethyl) Ether	<5.4	5.4
108-60-1	Bis(2-chloroisopropyl) Ether	<5.4	5.4
91-58-7	2-Chloronaphthalene	<5.4	5.4
95-57-8	2-Chlorophenol	<5.4	5.4
7005-72-3	4-Chlorophenyl Phenyl Ether	<5.4	5.4
218-01-9	Chrysene	<5.4	5.4
53-70-3	Dibenz(a,h)anthracene	<5.4	5.4
84-74-2	Di-n-butyl Phthalate	<5.4	5.4
95-50-1	1,2-Dichlorobenzene	<5.4	5.4
541-73-1	1,3-Dichlorobenzene	<5.4	5.4
106-46-7	1,4-Dichlorobenzene	<5.4	5.4
91-94-1	3,3'-Dichlorobenzidine	<22	22
120-83-2	2,4-Dichlorophenol	<5.4	5.4
84-66-2	Diethyl Phthalate	<5.4	5.4
105-67-9	2,4-Dimethylphenol	<5.4	5.4
131-11-3	Dimethyl Phthalate	<5.4	5.4

Continued on next page



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Composite**  
Lab Sample ID: **0902360-07**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902425

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/26/09 By: DCG  
Analyzed: 03/02/09 By: DMC  
Analytical Batch: 9030346

### Semivolatile Organic Compounds by EPA Method 625 (Continued)

CAS Number	Analyte	Analytical Result	RL
534-52-1	4,6-Dinitro-2-methylphenol	<22	22
51-28-5	2,4-Dinitrophenol	<22	22
121-14-2	2,4-Dinitrotoluene	<5.4	5.4
606-20-2	2,6-Dinitrotoluene	<5.4	5.4
117-84-0	Di-n-octyl Phthalate	<5.4	5.4
122-66-7	1,2-Diphenylhydrazine	<5.4	5.4
117-81-7	Bis(2-ethylhexyl) Phthalate	<5.4	5.4
206-44-0	Fluoranthene	<5.4	5.4
86-73-7	Fluorene	<5.4	5.4
118-74-1	Hexachlorobenzene	<5.4	5.4
87-68-3	Hexachlorobutadiene	<5.4	5.4
77-47-4	Hexachlorocyclopentadiene	<5.4	5.4
67-72-1	Hexachloroethane	<5.4	5.4
193-39-5	Indeno(1;2;3-cd)pyrene	<5.4	5.4
78-59-1	Isophorone	<5.4	5.4
91-20-3	Naphthalene	<5.4	5.4
98-95-3	Nitrobenzene	<5.4	5.4
100-02-7	4-Nitrophenol	<22	22
88-75-5	2-Nitrophenol	<5.4	5.4
62-75-9	N-Nitroso-dimethylamine	<5.4	5.4
86-30-6	N-Nitroso-diphenylamine	<5.4	5.4
621-64-7	N-Nitroso-di-n-propylamine	<5.4	5.4
87-86-5	Pentachlorophenol	<22	22
85-01-8	Phenanthrene	<5.4	5.4
108-95-2	Phenol	<5.4	5.4
129-00-0	Pyrene	<5.4	5.4
120-82-1	1,2,4-Trichlorobenzene	<5.4	5.4
88-06-2	2,4,6-Trichlorophenol	<5.4	5.4

<b>Surrogates:</b>	<b>% Recovery</b>	<b>Control Limits</b>
2-Fluorophenol	67	20-70

Continued on next page





## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Composite**  
Lab Sample ID: **0902360-07**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902425

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/26/09 By: DCG  
Analyzed: 03/02/09 By: DMC  
Analytical Batch: 9030346

### Semivolatile Organic Compounds by EPA Method 625 (Continued)

<i>Surrogates (Continued):</i>	<i>% Recovery</i>	<i>Control Limits</i>
<i>Phenol-d6</i>	45	23-50
<i>Nitrobenzene-d5</i>	118	31-123
<i>2-Fluorobiphenyl</i>	91	25-113
<i>2,4,6-Tribromophenol</i>	97	30-121
<i>o-Terphenyl</i>	95	42-125



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Composite**  
Lab Sample ID: **0902360-07**  
Matrix: Waste Water

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50

### Total Metals by EPA 200 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
<b>Aluminum</b>	<b>0.60</b>	0.050	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Antimony	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Arsenic	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
<b>Barium</b>	<b>31</b>	5.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Beryllium	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
<b>Boron</b>	<b>43</b>	20	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Cadmium	<0.20	0.20	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Chromium	<10	10	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Cobalt	<10	10	ug/L	1	USEPA-200.7	03/03/09	KLV	0902338
<b>Copper</b>	<b>5.4</b>	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
<b>Iron</b>	<b>0.62</b>	0.010	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Lead	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
<b>Magnesium</b>	<b>14</b>	0.50	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
<b>Manganese</b>	<b>0.012</b>	0.010	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Molybdenum	<0.10	0.10	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Nickel	<5.0	5.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Selenium	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Silver	<0.50	0.50	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Thallium	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Tin	<0.20	0.20	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Titanium	<0.10	0.10	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
<b>Zinc</b>	<b>13</b>	10	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **001A Composite**  
Lab Sample ID: **0902360-07**  
Matrix: Waste Water

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:00  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50

### Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
BOD, (5-Day)	6.3	1.0	mg/L	1	SM 5210 B 20th	02/20/09	CKD	0902276
Bromide	0.54	0.10	mg/L	1	ASTM D 1246-95	02/27/09	VAS	0902512
Chemical Oxygen Demand	13	5.0	mg/L	1	SM 5220 D 20th	02/23/09	CKD	0902310
*Color (Apparent)	15.0	5.00	A.C.U.	1	SM 2120 B 20th	02/20/09	CLD	0902294
Fluoride	0.37	0.10	mg/L	1	SM 4500-F C 20th	02/27/09	CKD	0902571
Hardness as CaCO <sub>3</sub>	192	2	mg/L	1	SM 2340 C 20th	03/03/09	CKD	0902612
*Surfactants, MBAS	0.0365	0.0250	mg/L	1	SM 5540 C 20th	02/20/09	CLB	0902301
Phosphorus, Total	0.192	0.0100	mg/L	1	SM 4500-P F 20th	02/23/09	INR	0902259
Residue, Dissolved @ 180° C	320	50	mg/L	1	SM 2540 C 20th	02/25/09	KNC	0902404
Residue, Suspended	11.1	4.5	mg/L	1	SM 2540 D 20th	02/25/09	KNC	0902406
Sulfate	44	10	mg/L	2	ASTM D516-90 (02)	02/26/09	GEH	0902515
Sulfide, Total	<0.020	0.020	mg/L	1	APHA 4500-S <sub>2</sub> D	02/26/09	KNC	0902525
*Sulfite	<1.0	1.0	mg/L	1	SM 4500-SO <sub>3</sub> B 20th	02/20/09	GEH	0902339
Carbon, Total Organic	4.1	1.0	mg/L	1	SM 5310 C 20th	02/27/09	LMA	0902550
Nitrogen, Ammonia	0.11	0.050	mg/L	1	SM 4500-NH <sub>3</sub> G 20th	02/25/09	GEH	0902392
Nitrogen, Nitrate+Nitrite	1.3	0.10	mg/L	2	SM 4500-NO <sub>3</sub> F 20th	02/21/09	HLB	0902277
Nitrogen, Organic	0.54	0.50	mg/L	1	USEPA-351.2/4500-NH <sub>3</sub>	03/03/09	GEH	0902604
Nitrogen, Total Kjeldahl	0.66	0.50	mg/L	1	USEPA-351.2	02/25/09	CLB	0902309
Nitrogen, Inorganic	1.4	0.15	mg/L	2	[CALC]	02/25/09	HLB	[CALC]

\*See Statement of Data Qualifications



## ANALYTICAL REPORT

Client: **Detroit Edison - Fermi-2**  
Project: Mercury Analysis  
Client Sample ID: **001A**  
Lab Sample ID: **0901361-01**  
Matrix: Waste Water

Work Order: **0901361**  
Description: Laboratory Services  
Sampled: 01/27/09 11:40  
Sampled By: E.Z.J.B.  
Received: 01/28/09 19:00

### Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Mercury	1.48	0.500	ng/L	1	USEPA-1631E	02/03/09	DWJ	0901578



## ANALYTICAL REPORT

Client: **Detroit Edison - Fermi-2**  
Project: Mercury Analysis  
Client Sample ID: **001A Duplicate**  
Lab Sample ID: **0901361-02**  
Matrix: Waste Water

Work Order: **0901361**  
Description: Laboratory Services  
Sampled: 01/27/09 11:40  
Sampled By: EZ,JB  
Received: 01/28/09 19:00

### Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Mercury	1.53	0.500	ng/L	1	USEPA-1631E	02/03/09	DWJ	0901578

Attachment VI (b)

NPDES Permit Application for Reissuance

Fermi 2 Plant MI0037028

GSW Intake Analyses



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **GSW Intake Grab Day 1**  
Lab Sample ID: **0902360-01**  
Matrix: Waste Water

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/18/09 11:40  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50

### Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Chlorine, Total Residual (Field)	<0.015	0.015	mg/L	1	USEPA 330.1	02/18/09	FLD	0902356
Oxygen, Dissolved (Field)	4.32	0.10	mg/L	1	SM 4500-O G 20th	02/18/09	FLD	0902356
pH (Field)	8.03	1.00	pH Units	1	SM 4500-H B 20th	02/18/09	FLD	0902356
Temperature °C (Field)	3.0	0.1	°C	1	SM 2550 B 20th	02/18/09	FLD	0902356

## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Grab Day 2**  
 Lab Sample ID: **0902360-05**  
 Matrix: Waste Water

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50

### Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Chlorine, Total Residual (Field)	<0.015	0.015	mg/L	1	USEPA 330.1	02/19/09	FLD	0902635
Oxygen, Dissolved (Field)	<b>6.47</b>	0.10	mg/L	1	SM 4500-O G 20th	02/19/09	FLD	0902356
pH (Field)	<b>7.47</b>	1.00	pH Units	1	SM 4500-H B 20th	02/19/09	FLD	0902356
Temperature °C (Field)	<b>2.3</b>	0.1	°C	1	SM 2550 B 20th	02/19/09	FLD	0902356
Cyanide, Available	<2.0	2.0	ug/L	1	USEPA OIA-1677	02/25/09	VAS	0902420
HEM: Oil & Grease	<5.00	5.00	mg/L	1	USEPA-1664A	02/26/09	LMA	0902384
Phenolics, Total	<50.0	50.0	ug/L	1	USEPA-420.1	02/26/09	INR	0902394



## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Grab VOC Composite**  
 Lab Sample ID: **0902360-06**  
 Matrix: Waste Water  
 Unit: ug/L  
 Dilution Factor: 1  
 QC Batch: 0902456

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50  
 Prepared: 02/25/09 By: JDM  
 Analyzed: 02/25/09 By: JDM  
 Analytical Batch: 9022632

### \*Volatile Organic Compounds by EPA Method 624

CAS Number	Analyte	Analytical Result	RL
107-02-8	Acrolein	<5.0	5.0
107-13-1	Acrylonitrile	<1.0	1.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<1.0	1.0
75-25-2	Bromoform	<1.0	1.0
74-83-9	Bromomethane	<1.0	1.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<10	10
67-66-3	Chloroform	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
124-48-1	Dibromochloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
542-75-6	1,3-Dichloropropene (Total)	<2.0	2.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
75-09-2	Methylene Chloride	<5.0	5.0
79-34-5	1,1,2,2-Tetrachloroethane	<1.0	1.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

**Surrogates:**

*Dibromofluoromethane*

**% Recovery**

101

**Control Limits**

88-115

Continued on next page

\*See Statement of Data Qualifications

**ANALYTICAL REPORT**

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **GSW Intake Grab VOC Composite**  
Lab Sample ID: **0902360-06**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902456

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:40  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/25/09 By: JDM  
Analyzed: 02/25/09 By: JDM  
Analytical Batch: 9022632

**\*Volatile Organic Compounds by EPA Method 624 (Continued)**

<i>Surrogates (Continued):</i>	<i>% Recovery</i>	<i>Control Limits</i>
<i>1,2-Dichloroethane-d4</i>	97	81-116
<i>Toluene-d8</i>	100	87-113
<i>4-Bromofluorobenzene</i>	99	78-116

\*See Statement of Data Qualifications

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## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Composite**  
 Lab Sample ID: **0902360-08**  
 Matrix: Waste Water  
 Unit: ug/L  
 Dilution Factor: 1  
 QC Batch: 0902493

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50  
 Prepared: 02/27/09 By: DCG  
 Analyzed: 03/02/09 By: ASC  
 Analytical Batch: 9030318

### Polychlorinated Biphenyls (PCBs) by EPA Method 608

CAS Number	Analyte	Analytical Result	RL
12674-11-2	PCB-1016	<0.20	0.20
11104-28-2	PCB-1221	<0.20	0.20
11141-16-5	PCB-1232	<0.20	0.20
53469-21-9	PCB-1242	<0.20	0.20
12672-29-6	PCB-1248	<0.20	0.20
11097-69-1	PCB-1254	<0.20	0.20
11096-82-5	PCB-1260	<0.20	0.20

**Surrogates:**

Decachlorobiphenyl  
 Tetrachloro-m-xylene

**% Recovery**

87  
 50

**Control Limits**

45-134  
 27-126

## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Composite**  
 Lab Sample ID: **0902360-08**  
 Matrix: Waste Water  
 Unit: ug/L  
 Dilution Factor: 1  
 QC Batch: 0902425

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50  
 Prepared: 02/26/09 By: DCG  
 Analyzed: 03/02/09 By: DMC  
 Analytical Batch: 9030346

### Semivolatile Organic Compounds by EPA Method 625

CAS Number	Analyte	Analytical Result	RL
83-32-9	Acenaphthene	<5.0	5.0
208-96-8	Acenaphthylene	<5.0	5.0
120-12-7	Anthracene	<5.0	5.0
92-87-5	Benzidine	<50	50
56-55-3	Benzo(a)anthracene	<5.0	5.0
50-32-8	Benzo(a)pyrene	<5.0	5.0
205-99-2	Benzo(b)fluoranthene	<5.0	5.0
207-08-9	Benzo(k)fluoranthene	<5.0	5.0
191-24-2	Benzo(g,h,i)perylene	<5.0	5.0
101-55-3	4-Bromophenyl Phenyl Ether	<5.0	5.0
85-68-7	Butyl Benzyl Phthalate	<5.0	5.0
59-50-7	4-Chloro-3-methylphenol	<5.0	5.0
111-91-1	Bis(2-chloroethoxy)methane	<5.0	5.0
111-44-4	Bis(2-chloroethyl) Ether	<5.0	5.0
108-60-1	Bis(2-chloroisopropyl) Ether	<5.0	5.0
91-58-7	2-Chloronaphthalene	<5.0	5.0
95-57-8	2-Chlorophenol	<5.0	5.0
7005-72-3	4-Chlorophenyl Phenyl Ether	<5.0	5.0
218-01-9	Chrysene	<5.0	5.0
53-70-3	Dibenz(a,h)anthracene	<5.0	5.0
84-74-2	Di-n-butyl Phthalate	<5.0	5.0
95-50-1	1,2-Dichlorobenzene	<5.0	5.0
541-73-1	1,3-Dichlorobenzene	<5.0	5.0
106-46-7	1,4-Dichlorobenzene	<5.0	5.0
91-94-1	3,3'-Dichlorobenzidine	<20	20
120-83-2	2,4-Dichlorophenol	<5.0	5.0
84-66-2	Diethyl Phthalate	<5.0	5.0
105-67-9	2,4-Dimethylphenol	<5.0	5.0
131-11-3	Dimethyl Phthalate	<5.0	5.0

Continued on next page

## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Composite**  
 Lab Sample ID: **0902360-08**  
 Matrix: Waste Water  
 Unit: ug/L  
 Dilution Factor: 1  
 QC Batch: 0902425

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50  
 Prepared: 02/26/09 By: DCG  
 Analyzed: 03/02/09 By: DMC  
 Analytical Batch: 9030346

### Semivolatile Organic Compounds by EPA Method 625 (Continued)

CAS Number	Analyte	Analytical Result	RL
534-52-1	4,6-Dinitro-2-methylphenol	<20	20
51-28-5	2,4-Dinitrophenol	<20	20
121-14-2	2,4-Dinitrotoluene	<5.0	5.0
606-20-2	2,6-Dinitrotoluene	<5.0	5.0
117-84-0	Di-n-octyl Phthalate	<5.0	5.0
122-66-7	1,2-Diphenylhydrazine	<5.0	5.0
117-81-7	Bis(2-ethylhexyl) Phthalate	<5.0	5.0
206-44-0	Fluoranthene	<5.0	5.0
86-73-7	Fluorene	<5.0	5.0
118-74-1	Hexachlorobenzene	<5.0	5.0
87-68-3	Hexachlorobutadiene	<5.0	5.0
77-47-4	Hexachlorocyclopentadiene	<5.0	5.0
67-72-1	Hexachloroethane	<5.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	<5.0	5.0
78-59-1	Isophorone	<5.0	5.0
91-20-3	Naphthalene	<5.0	5.0
98-95-3	Nitrobenzene	<5.0	5.0
100-02-7	4-Nitrophenol	<20	20
88-75-5	2-Nitrophenol	<5.0	5.0
62-75-9	N-Nitroso-dimethylamine	<5.0	5.0
86-30-6	N-Nitroso-diphenylamine	<5.0	5.0
621-64-7	N-Nitroso-di-n-propylamine	<5.0	5.0
87-86-5	Pentachlorophenol	<20	20
85-01-8	Phenanthrene	<5.0	5.0
108-95-2	Phenol	<5.0	5.0
129-00-0	Pyrene	<5.0	5.0
120-82-1	1,2,4-Trichlorobenzene	<5.0	5.0
88-06-2	2,4,6-Trichlorophenol	<5.0	5.0

**Surrogates:**

2-Fluorophenol

**% Recovery**

44

**Control Limits**

20-70

Continued on next page

**ANALYTICAL REPORT**

Client: **DTE Energy - EM&R**  
Project: Permit Renewal - Fermi, 2009  
Client Sample ID: **GSW Intake Composite**  
Lab Sample ID: **0902360-08**  
Matrix: Waste Water  
Unit: ug/L  
Dilution Factor: 1  
QC Batch: 0902425

Work Order: **0902360**  
Description: Laboratory Services  
Sampled: 02/19/09 11:40  
Sampled By: E.Z., T.B.  
Received: 02/19/09 18:50  
Prepared: 02/26/09 By: DCG  
Analyzed: 03/02/09 By: DMC  
Analytical Batch: 9030346

**Semivolatile Organic Compounds by EPA Method 625 (Continued)**

<i>Surrogates (Continued):</i>	<i>% Recovery</i>	<i>Control Limits</i>
<i>Phenol-d6</i>	36	23-50
<i>Nitrobenzene-d5</i>	113	31-123
<i>2-Fluorobiphenyl</i>	84	25-113
<i>2,4,6-Tribromophenol</i>	64	30-121
<i>o-Terphenyl</i>	89	42-125

## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Composite**  
 Lab Sample ID: **0902360-08**  
 Matrix: Waste Water

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50

### Total Metals by EPA 200 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	0.15	0.050	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Antimony	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Arsenic	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Barium	25	5.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Beryllium	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Boron	30	20	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Cadmium	<0.20	0.20	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Chromium	<10	10	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Cobalt	<10	10	ug/L	1	USEPA-200.7	03/03/09	KLV	0902338
Copper	5.8	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Iron	0.16	0.010	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Lead	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Magnesium	9.8	0.50	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Manganese	<0.010	0.010	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Molybdenum	<0.10	0.10	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Nickel	<5.0	5.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Selenium	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Silver	<0.50	0.50	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Thallium	<1.0	1.0	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337
Tin	<0.20	0.20	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Titanium	<0.10	0.10	mg/L	1	USEPA-200.7	02/25/09	JMF	0902338
Zinc	<10	10	ug/L	1	USEPA-200.8	02/25/09	MSM	0902337

## ANALYTICAL REPORT

Client: **DTE Energy - EM&R**  
 Project: Permit Renewal - Fermi, 2009  
 Client Sample ID: **GSW Intake Composite**  
 Lab Sample ID: **0902360-08**  
 Matrix: Waste Water

Work Order: **0902360**  
 Description: Laboratory Services  
 Sampled: 02/19/09 11:40  
 Sampled By: E.Z., T.B.  
 Received: 02/19/09 18:50

### Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
*BOD, (5-Day)	1.8	1.0	mg/L	1	SM 5210 B 20th	02/20/09	CKD	0902276
Bromide	0.51	0.10	mg/L	1	ASTM D 1246-95	02/27/09	VAS	0902512
Chemical Oxygen Demand	8.8	5.0	mg/L	1	SM 5220 D 20th	02/23/09	CKD	0902310
*Color (Apparent)	10.0	5.00	A.C.U.	1	SM 2120 B 20th	02/20/09	CLD	0902294
Fluoride	0.24	0.10	mg/L	1	SM 4500-F C 20th	02/27/09	CKD	0902571
Hardness as CaCO <sub>3</sub>	143	2	mg/L	1	SM 2340 C 20th	03/03/09	CKD	0902612
*Surfactants, MBAS	0.0646	0.0250	mg/L	1	SM 5540 C 20th	02/20/09	CLB	0902301
Phosphorus, Total	0.0242	0.0100	mg/L	1	SM 4500-P F 20th	02/23/09	INR	0902259
Residue, Dissolved @ 180° C	230	50	mg/L	1	SM 2540 C 20th	02/25/09	KNC	0902404
Residue, Suspended	<3.3	3.3	mg/L	1	SM 2540 D 20th	02/25/09	KNC	0902406
Sulfate	28	5.0	mg/L	1	ASTM D516-90 (02)	02/26/09	GEH	0902515
Sulfide, Total	<0.020	0.020	mg/L	1	APHA 4500-S <sub>2</sub> D	02/26/09	KNC	0902525
*Sulfite	<1.0	1.0	mg/L	1	SM 4500-SO <sub>3</sub> B 20th	02/20/09	GEH	0902339
Carbon, Total Organic	2.9	1.0	mg/L	1	SM 5310 C 20th	02/27/09	LMA	0902550
Nitrogen, Ammonia	0.21	0.050	mg/L	1	SM 4500-NH <sub>3</sub> G 20th	02/25/09	GEH	0902392
Nitrogen, Nitrate+Nitrite	0.68	0.050	mg/L	1	SM 4500-NO <sub>3</sub> F 20th	02/21/09	HLB	0902277
Nitrogen, Organic	<0.50	0.50	mg/L	1	USEPA-351.2/4500-NH <sub>3</sub>	03/03/09	GEH	0902604
Nitrogen, Total Kjeldahl	<0.50	0.50	mg/L	1	USEPA-351.2	02/25/09	CLB	0902309
Nitrogen, Inorganic	0.89	0.10	mg/L	1	[CALC]	02/25/09	HLB	[CALC]

\*See Statement of Data Qualifications



## Attachment VII

## FERMI 2 NPDES PERMITTED WATER TREATMENT ADDITIVES

This list includes those WTA that are currently approved by the Surface Water Quality Assessment Section, Water Division, Michigan Department of Environmental Quality (Permit # MI0037028)

Sample Point	Product	Function	Discharge Concentration		Discharge Frequency		Approval Documentation
			Average	Maximum			
Outfall 001	Depositrol BL5307	Deposit Control	6 mg/L	15 mg/L	24 hr/d	7 d/wk	On File Letter dated 11/22/00
	Depositrol BL5400	Deposit Control	0.31 mg/L	2 mg/L	24 hr/d	7 d/wk	On File Letter dated 11/22/00
	Depositrol PY5204	Deposit Control	0.4 mg/L	10 mg/L	24 hr/d	7 d/wk	On File Letter dated 11/22/00
	Depositrol PY5206	Deposit Control	0.2 mg/L	18 mg/L	24 hr/d	7 d/wk	On File Letter dated 11/22/00
	Sodium Hypochlorite	Biocide	<30 ug/L	38 ug/L	>160 min/d	7 d/wk	Permit Limitation Part I.A.1
	Sodium Sulfite	Dehalogenation agent	1.5 times the stoichiometric amount of applied chlorine / bromine oxidant		—	—	Permit Limitation Part I.A.1.e
	Sodium Bisulfite	Dehalogenation agent	1.5 times the stoichiometric amount of applied chlorine / bromine oxidant		—	—	Permit Limitation Part I.A.1.e and On File letter dated 9/20/02
	Spectrus CT1300	Biocide (Molluscicide)	3.2 ug/L*	3.2 ug/L*	See Permit	See Permit	Permit Limitations Part I.A.1 and Part I.A.2
	Spectrus DT1400	Detox for CT1300	—	—	—	—	Permit Limitations Part I.A.1 and Part I.A.2
	Spectrus BD 1500	Deposit Control	—	0.25 mg/l	24 hr/d	30 d/yr	On File Letter dated 4/5/01
	Flogard MS6209	Corrosion Inhibitor	—	110 ug/l	24 hr/d	30 d/yr	On File Letter dated 5/10/01
	Muriatic Acid	Cleaning Agent for OR Probe	—	0.47 ug/l** (pH 6.5-9.0)	24 hr/d	7 d/wk	On File Letter Dated 11/26/02
	Muriatic Acid/ Sulfuric Acid	Scale Control	—	0.47 ug/l** (pH 6.5-9.0)	24 hr/d	7 d/wk	On File Letter Dated 12/7/04
	Flogard MS6222	Corrosion Inhibitor	—	1.5 mg/L	24 hr/d	30 d/yr	On File Letter Dated 6/27/03
	Aquathol K Aquatic Herbicide	Herbicide	—	80 ug/l	24 hr/d	5 d/yr	On File Letter Dated May 24, 2007
	Reward Landscape and Aquatic Herbicide	Herbicide	—	84 ug/l	24 hr/d	5 d/yr	On File Letter Dated May 24, 2007
	Cutrine-Plus Algaecide	Herbicide	—	25 ug/l	24 hr/d	5 d/yr	On File Letter Dated May 24, 2007
Outfall 009	Sodium Hypochlorite	Biocide	<30 ug/L	38 ug/L	8 hr/d	4 d/yr	Permit Limitation

							Part I.A.5
	Polyfloc AP 1120	Coagulant (settling agent)	0 mg/L	0.1 mg/L	8 hr/d	4 d/yr	On File Letter dated 11/22/00
	Spectrus CT1300	Biocide (Molluscicide)		0.02 ug/L	8 hr/d	4 d/yr	On File Letter dated 6/17/03
	Depositrol BL5400	Deposit Control		0.40 ug/L	8 hr/d	4 d/yr	On File Letter dated 6/17/03
	Spectrus BD 1500	Deposit Control		2.0 ug/L	8 hr/d	4 d/yr	On File Letter dated 6/17/03
	Flogard MS6209	Corrosion Inhibitor		0.8 ug/L	8 hr/d	4 d/yr	On File Letter dated 6/17/03
	Flogard MS6222	Corrosion Inhibitor		4.3 ug/l	See Permit	-	On File Letter dated 12/7/04
Outfall 011	Depositrol BL5307	Deposit Control	6 mg/L	15 mg/L	24 hr/d	7 d/yr	On File Letter dated 11/22/00
Outfall 013	Polyfloc AP1120	Coagulant (settling agent)	0.1 mg/L	0.1 mg/L	24 hr/d	24 hr/d	On File Letter dated 11/22/00
	Klaraid PC2700	Coagulant (settling agent)		3.4 mg/L	No Limit	No Limit	On File Letter dated 1/18/01

\* Refer to permit for specifics on outfalls 001A and 001B

\*\* Equates to addition rate of 40 ml/minute

Current as of March 12, 2009

## **Attachment VIII**

### **NPDES Permit Application for Reissuance**

**Fermi 2 Power Plant      MI0037028**

#### **Outfall 009 Analyses, Pending**

The treatment system for Outfall 009 consists of a 3 chambered settling basin. At the time samples were to be obtained for the Fermi 2 NPDES Permit application, all chambers were ice covered. The MDEQ Permit Unit Chief advised that samples be obtained after the ice cover dissipates, as samples obtained for other permittees from ice covered treatment systems have been found to be not representative of the discharge under normal operations. Ice cover has recently dissipated from the surface of this treatment system. Sampling and analyses are pending, and will be submitted as soon as results are available.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER BUREAU  
JUNE 2008

STAFF REPORT

ACUTE TOXICITY ASSESSMENT OF DECO-FERMI-2 PLT  
OUTFALL 009 EFFLUENT  
NEWPORT, MICHIGAN  
MAY 13-15, 2008  
NPDES PERMIT NO. MI0037028

Staff of the Surface Water Assessment Section performed a *Daphnia magna* (*D. magna*) acute toxicity test on a grab/composite sample of the DECO-Ferri-2 Plt outfall 009 effluent from May 13-15, 2008. The facility was operating normally when the sample was collected.

Toxicity testing was performed according to the Great Lakes and Environmental Assessment Section Procedure 24 (procedure available upon request). The effluent samples did not contain quantifiable levels of total residual chlorine (level of quantification = 0.02 milligrams per liter). Therefore, dechlorination was not necessary.

The facility discharges storm water runoff, low volume wastes, and chemical and nonchemical metal cleaning wastes from outfall 009 to Swan Creek via an overflow canal (discharge flow rate = 0.72 million gallons per day at the time of sampling). The allowable acute toxicity level for the effluent at the time of the test was 1.0 acute toxic unit (TUa).

SUMMARY

1. Test water quality parameters met test acceptability criteria (data available upon request).
2. The acute toxicity of the effluent to *D. magna* (0.0 TUa; Table 1) did not exceed an allowable level (1.0 TUa).
3. The *D. magna* control (21% mortality) failed to meet quality assurance/quality control criterion ( $\leq 10\%$  mortality) for an acute toxicity test. However, there was no toxicity observed. Therefore, the effluent was not toxic to *D. magna*.

Test and Report by: Diana Butler, Laboratory Technician  
Surface Water Assessment Section  
Water Bureau

Reviewed by: William Dimond, Aquatic Biology Specialist  
Surface Water Assessment Section  
Water Bureau

Table 1. Percent mortality of *D. magna* exposed to selected concentrations of DECO-Fermi-2 Plt outfall 009 effluent from May 13-15, 2008.

Effluent Concentration	Percent Mortality	
	24 Hour	48 Hour
Control*	0	21
32	0	5
42	5	5
56	0	0
75	5	0
100	0	0

\*Control water was aerated carbon-filter Lansing City water.

**Attachment IX**

**NPDES Permit Application for Reissuance**

**Fermi 2 Power Plant      MI0037028**

**Request for Waiver – Outfall 011 Analyses**

The Company requests a waiver for submittal of analytical data at the Fermi 2 Power Plant Outfall 011 for the following reasons:

- Monitoring is required at Outfall 011 only during times of oily wastewater discharge. This effluent has been re-routed to the Monroe Metropolitan Water Pollution Control Facility via Permit No. 1020 (City of Monroe)
- The company retains the option to discharge via Outfall 011 if at any time discharge to the City of Monroe is no longer permitted. At that time, the company will notify the MDEQ and arrange to submit the required analytical information, to be obtained upon commencement of discharge via Outfall 011.

**Attachment X**

**NPDES Permit Application for Reissuance**

**Fermi 2 Power Plant      MI0037028**

**Request for Waiver – Outfall 013 Analyses**

The Company requests a waiver for submittal of analytical data at the Fermi 2 Power Plant Outfall 013 for the following reasons:

- Monitoring is only required at Outfall 013 during the infrequent discharge of dredged material effluent. The water treatment additives that enhance settling are previously approved and do not require separate monitoring.
- Total suspended solids (TSS) is the only parameter of concern for this monitoring point. This data is submitted as required during times of discharge on the Discharge Monitoring Report. There are no process wastewaters that are discharged via this monitoring point.

Attachment XI

Detroit Edison: Fermi 2 Power Plant - 2009

NPDES Permit Application No. MI0037028

Section IV, Item 1.B. – Material Stored in Secondary Containment Structures

1. No. 2 Fuel Oil
2. Sodium Hypochlorite
3. Mineral Oil