DTE Energy Company 6400 North Dixie Highway Newport, MI 48166



EPP

March 31, 2014 NRC-14-0029

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

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

Subject: Submittal of the National Pollutant Discharge Elimination System (NPDES) Permit Application for Reissuance

In accordance with the requirement of Section 3.2 of the Fermi 2 Facility Operating License NPF-43, Appendix B, "Environmental Protection Plan," enclosed is a copy of the Fermi 2 National Pollutant Discharge Elimination System (NPDES) permit number MI0037028 Application for Reissuance that is being submitted to the Michigan Department of Environmental Quality on March 31, 2014.

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,

Zackary W. Rad Manager, Nuclear Licensing

Enclosure

USNRC NRC-14-0029 Page 2

 cc: NRC Project Manager NRC Resident Office
 Reactor Projects Chief, Branch 4, Region III
 Regional Administrator, Region III
 Michigan Public Service Commission
 Regulated Energy Division (<u>Kindscl@michigan.gov</u>) (w/o Enclosure) Enclosure to NRC-14-0029

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

DTE Electric Company One Energy Plaza, Detroit, MI 48226



March 31, 2014

Michigan Department of Environmental Quality Cashier's Office WRD – NP1 5th Floor South, Constitution Hall 525 West Allegan Lansing, Michigan 48933

Re: Application for Reissuance of NPDES Permit Enrico Fermi 2 Power Plant NPDES Permit No. MI0037028

Dear Sir or Madam:

In accordance with the Michigan Department of Environmental Quality Authorization to Discharge under NPDES Permit No. MI0037028, the DTE Electric Company is submitting the enclosed application for the reissuance of NPDES Permit No. MI0037028 for the Enrico Fermi 2 Power Plant. Also enclosed is the associated \$750.00 application fee.

The Company would appreciate your expeditious review of this application and an acknowledgement of its receipt and administrative completeness as soon as practical.

If you have any questions relative to this application or desire additional information, please contact me at (313) 235-5569 or via e-mail at <u>chueyn@dteenergy.com</u>.

Sincerely, DTE Energy Corporate Services, LLC

Nicholas J. Chury

Nicholas J. Chuey Senior Environmental Engineer Environmental Management & Resources

Enclosure

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION I - General Information

Water Resources Division Use Cashler Use Only: 6000-42203-9512-481000-00

Section I shall be completed by all permit applicants. Instructions for App

	•	bleting Section I, Pages 1 and k. To submit additional informati				<u>Oniv</u>				
PLE/	ASE	TYPE OR PRINT	·		Receipt	#:				
1		ES PERMIT NUMBER MI003	7028		Permit ID	#:				
	App	licant Name DTE Electric C	ompany							
APPLICANT	Address One Energy Plaza					Address :	2 or P.O.	Box Room 655 C	G.O.	
APPL	City Detroit				State Mic	^{Ite} Michigan ZIP Code 48226				
1.72	Telephone (with area code)FAX (with area code)(313) 235-5569(313)-				^{code)} 235-5018			Applicant Web Site Address www.dteenergy.com		
	Fac	Facility Name 1 Fermi 2 Power Plant								
	Fac	ility Name 2						· · · · · · · · · · · · · · · · · · ·		
FACILITY	Fac	llity Name 3		1						
3. FAC	Stre	et Address (Do not use a P.O. B	ox Number) 6400 Nor	th Dixie H	ighway		· .	•	
	City Newport				State Michigan ZI			ZIP Code 48166		
	Tele (7	ephone (with area code) 34) 586-5263		FAX (with area	code)	Facil	ity Web	Site Address		
		Application Contact	First Name	Nicholas				Last Name Chuey	· · · · · · · · ·	
	i	Facility Contact	ior Engineer -	Environm	ental	•	Business DTE Energy Corporate	O. ZIP Code		
		Discharge Monitoring Reports Storm Water Billing	Address 1	One Energy	Plaza			Address 2 Room 655 G.O.		
		Biosolids Billing	City Det	roit			State	Michigan ZIP Code 48226		
	Ø	NPDES Annual Billing	Telephone (313) 23	(with area code) 5-5569	Fax Numb (313) 2	er 35-5018	e-mail a	ddress chueyn@dteener	gy.com	
		Application Contact	First Name	Kent				Last Name Scott		
2		Facility Contact	Title Direc	tor - Nuclear I	Production	1		Business DTE Energy - F	ermi 2 Power Plant	
CONTACTS		Discharge Monitoring Reports Storm Water Billing	Address 1	6400 North D	ixie Highw	/ay		Address 2 OBA 280		
4		Biosolids Billing	City New	/port			State	Michigan	ZIP Code 48166	
		NPDES Annual Billing	Telephone (734) 5	(with area code) 586-5325	Fax Numb (734) 58	er 36-5295	e-mail a	address scottkc@dteener	rgy.com	
	Г	Application Contact	First Name	э Магу				Last Name Hana	· . · .	
		Facility Contact	Title Sen	ior Engineer -	Environm	nental		Business DTE Energy Corporate Services, LLC		
		Discharge Monitoring Reports Storm Water Billing	Address 1	6400 North E)ixie Highv	way	· .	Address 2 200 Fermi 2		
		Biosolids Billing	City Nev	wport			State	Michigan	ZIP Code 48166	
		NPDES Annual Billing	Telephone (734) 58	e (with area code) 36-1839	Fax Numb	ber	e-mail	address hanamj@dteene	rgy.com	

1

EQP 4659-A (Rev. 7/2013) NP2

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION I – General Information

PLEASE TYPE	RPRINT			nnanananananananananananananananananan	an a				
FACILITY NAME	Fermi 2 Power Plant		NPDES PERMIT N	UMBER MI0037028					
☐ NEW U □ EXISTI ⊠ REISSI □ MODIF	SE, A proposed discharge. IG DISCHARGE that is curr IANCE of current permit. CATION of current permit.	one box only). Instructions for th ently unpermitted. Attach a description of the propose Existing Discharges that are cu	ed modification.		or Modification that				
include a	increased loading of pollute	ants to the receiving water are req	uired to submit a R	ule 98 Demonstration with th	ne Application. See Item 6.				
In accordar any new o specified in	ce with Rule 323,1098 of the increased loading of pollut Rule 1098, outlined on Page	IREMENTS. Instructions for this Michigan Water Quality Standard ants to the surface waters of the is 8-9 of the Appendix. For assist	ls, the applicant is e state. An Antide ance in completing	required to submit an Antide egradation Demonstration n this item, contact the Permi	nust contain the information ts Section.				
		ing of pollutants to the surface wa							
🛛 Antideg	adation Demonstration prov	ided. 🔲 Increased loading of po	lutants is exempt f	rom Antidegradation Demon	stration as indicated below:				
	A short-term (weeks to months) or temporary lowering of water quality.								
		d by regulations set forth in 40 CF		•					
	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								
🗖 Di	charges of pollutant quantiti	es from the intake water at a facili	ty if the intake and	discharge are to the same t	ody of water				
	Increases in flow at a POTW if the increase is within the design flow of the facility, there is no increased loading of BCCs that are not specifically limited in the current permit, and there is no significant change expected in the characteristics of the wastewater collected								
🗖 In	ermittent increased loading r	elated to wet-weather conditions			•				
	w or increased loading due t	o DEQ-approved controls related	to wet-weather cor	ditions					
	•	ficates of Coverage (COC) and No							
		authorized levels of a limit in an e		ument, except those loading	is that result from actions by				
		wise require submittal of an increa			teri then to reprint of the				
		ant which do not involve Bioaccu exists at the time of the request	nulative chemical	s of Concern and which use	less than to percent of the				
		ORMATION. Instructions for this	item are on Page	2 of the Annendix					
	Init of Government (LUG) Frenchtown Charte		LUG e-mail ad		nchartertwp.org				
B Count	Monroe		Township	Frenchtown					
C. Town	res Range R10E	Section 1/4 21	1/4, 1/4	Private (French) Land Cla	aim				
D. Latituc	• 41 deg. 57' 45"	•t	Longitude	83 deg. 15' 30"					
					······································				
	OPERATOR cility have a DEQ-certified o	perator? 🛛 🕅 Ves 🗖 N	o Instructions for	this item are on Page 2 of th	e Appendix.				
First N			Last Name	Bogle					
Certifi	ation Number W6093	. <u>.</u>	Certification Cl	A-1d, A-1	h, B-2a, B-2c				
Addre	s 1 6400 North Dixie	Highway	Address 2 1	10 AIB					
City	Newport		•	State Michigan	Zip Code 48166				
	one Number I) 586-5331	Fax Number	e-mall address	boglek@dteenergy.c	com				
L									

EQP 4659-A (Rev. 7/2013)

DTE Electric, Fermi 2 Personnel Certifications with State of Michigan, Department of Environmental Quality March 6, 2014

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

Name	Certificate #	A-1b	A-1d	A-1h	A-1i	A-1j	B-1b	B-2a	B-2c	Expiration
Kyle Bogle	W6093		X	Х				X	X	2018
Mary J. Hana	I 12768 C 17100				X	X				2019 2019
Mark A. Nederveld	I 05400				X					2017
John Tansek	W6149		X		X			X	X	2018
John M. Yokom	W3579	X	X	X			X	X	X	2016

Michigan Department of Environmental Quality - Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028					
this Application, including, but not limited to, permits issued und	Fermi 2 Power Plant MI0037028 ENVIRONMENTAL PERMITS Information requested below for any other federal, state, or local environmental permits in effect or applied for at the time of sullication, including, but not limited to, permits issued under any of the following programs: Air Pollution Control, Hazardou nent, Wetlands Protection, Soil Erosion and Sedimentation Control, and other NPDES permits. To submit additional informatem 3. Issuing Agency Permit or COC Number Permit Type ir Quality Division MI-ROP-B4321-2013 Renewable Operating F Altropolitan Water Pollution Control Facility 1020 Industrial User Dischar ent of the Army, US Army Corps of Engineers LRE-1998-1048 Department of the Arm Water Resources Division 11-58-2012 Dredging, Joint Permit f Monroe County Drain Commissioner 4736 SESC FLOW DIAGRAM AND NARRATIVE DESCRIPTION a low diagram (using 8½" x 11" paper if possible) and a narrative description that explains the diagram. The diagram should ter flow through the facility (from Intake through discharge), including all processes, treatment units, including any lagoons or pond-construction and line information should be included) used for wastewater treatment or storage (identify treatment units that anoty), and bypass piping. Show all operations contributing wastewater and the locations of flow meters, chemical feeds, and monit tee polits, The water balance shall show the daily average flow rates at the intake and discharge points, and approximate	Air Pollution Control, Hazardous Waste				
Issuing Agency		Permit Type				
Activity of the termination requested below for any other federal, state, or local environmental permits in effect or applied for at it this Application, including, but not limited to, permits issued under any of the following programs: Air Pollution Control Management, Wetlands Protection, Soil Erosion and Sedimentation Control, and other NPDES permits. To submit additt Page ii, Item 3. Issuing Agency Permit or COC Number P MDEQ, Air Quality Division MI-ROP-B4321-2013 Renewable of MI-ROP-B4321-2013 Monroe Metropolitan Water Pollution Control Facility 1020 Industrial Us Department of the Army, US Army Corps of Engineers LRE-1998-1048 Department MDEQ, Water Resources Division 11-58-2012 Dredging, Jot MDEQ, Water Resources Division 13-58-0013-P Application Office of Monroe County Drain Commissioner 4736 SESC 0. WATER FLOW DIAGRAM AND NARRATIVE DESCRIPTION Provide a flow dlagram (using 8½" x 11" paper if possible) and a narrative description that explains the diagram. The dla wastewater flow through the facility (from Intake through discharge), including all processes, treatment units, including any lago / pond construction and liner information should be included) used for wastewater and the locations of flow meters, chernical feec discharge points. The water balance shall show the daily average flow rates at the intake and discharge points, and approx between treatment or storage (identify treatment rates. Use actual measurements whenever available, otherwise t Show all sperifica	Renewable Operating Permit Source-Wide Permit to Install					
Monroe Metropolitan Water Pollution Control Facility		Industrial User Discharge				
Department of the Army, US Army Corps of Engineers		Department of the Army				
MDEQ, Water Resources Division	11-58-2012					
Office of Monroe County Drain Commissioner	4736	SESC				
wastewater flow through the facility (from Intake through discharge), i / pond construction and liner information should be included) used intermittently), and bypass piping. Show all operations contributing we discharge points. The water balance shall show the daily average is between treatment units, including influent and treatment rates. Use Show all significant losses of water to products, atmosphere, and dis secondary structures that are required by state or federal law and for Part 201 of the Michigan Act. Do not send blueprints. Provide bla	including all processes, treatment units of for wastewater treatment or storage vastewater and the locations of flow me flow rates at the intake and discharge se actual measurements whenever av charge. In addition, provide a flow diage r storm water runoff from any Site of E ck-and-white reproducible diagrams	s, including any lagoons or ponds (lagoon ge (identify treatment units that operate eters, chemical feeds, and monitoring and points, and approximate daily flow rates allable, otherwise use the best estimate. gram for any storm water discharges from Environmental Contamination, pursuant to S.				
Municipal Facilities – Include a narrative that briefly describes the initial construction, facility improvements, future plans for upgrade, lo	history of the wastewater treatment fa cation of all constructed emergency ov	cility and collection system, including the erflows, and other pertinent information.				
Industrial and Commercial Facilities - The diagram shall include	all operations contributing wastewater	, including process and production areas,				

sanitary flows, cooling water, and storm water runoff. Include a narrative that provides a brief description of the nature of the business and the manufacturing processes.

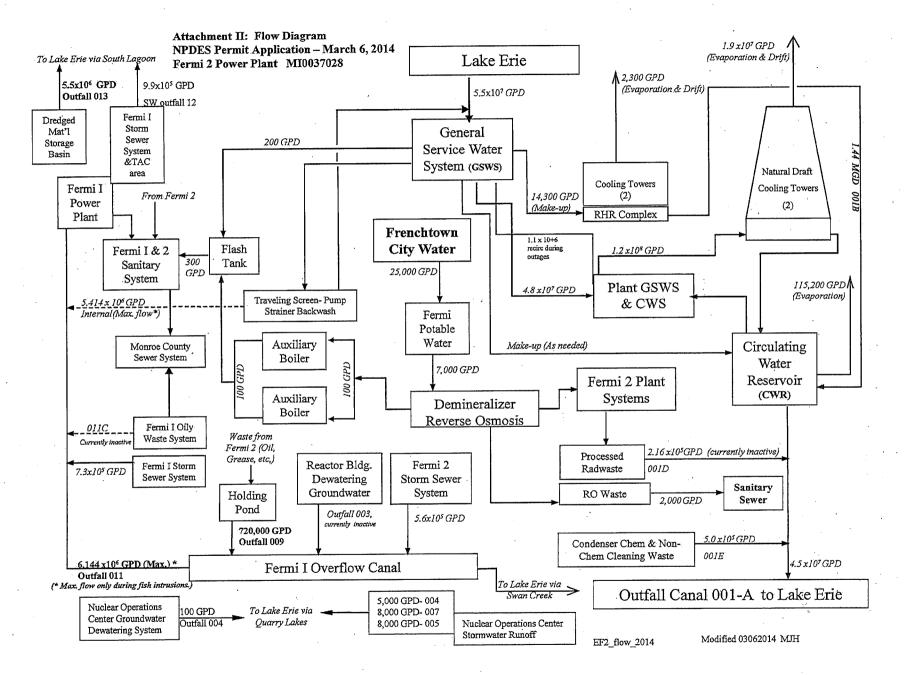
ATTACH THIS INFORMATION TO THIS APPLICATION. PLEASE DO NOT BIND THIS INFORMATION. Comments:

11. MAP OF FACILITY AND DISCHARGE LOCATION

Provide a detailed black-and-white reproducible map on 81/2" x 11" paper showing the location of the existing or proposed facility, wastewater and biosolids treatment system(s), water intakes, wastewater monitoring, and wastewater discharge points into receiving waters (including bypasses). Include the exact location of the water intakes, wastewater monitoring and discharge point(s) and, if applicable, all areas through which the discharge flows (e.g., wetlands, open drains, storm sewers) 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 perlinent landmarks). It is preferred that the minimum area this map shall encompass be approximately one (1) mile beyond the property boundaries.

ATTACH THIS INFORMATION TO THIS APPLICATION. Comments:

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Attachment III: Narrative Description NPDES Permit Application for Reissuance – March 6, 2014 Fermi 2 Power Plant MI0037028

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 1,120acre 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 Erle.

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 nonchemical metal cleaning wastes, and processed radwaste water are permitted to discharge from Outfall 001 to Lake Erie.

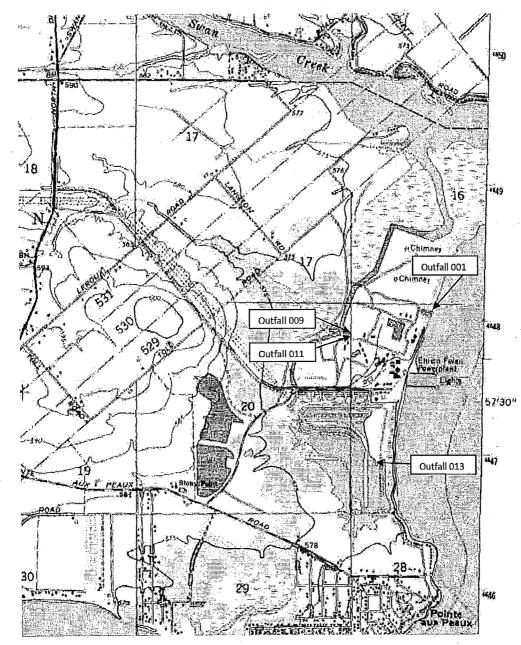
Storm water runoff, low volume wastes, and chemical and non-chemical metal cleaning wastes are permitted to discharge from Outfall 009 to Lake Erie via Swan Creek.

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

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

Sanitary wastewater is composed of treated oily waste water, 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 6, 2014 Fermi 2 Power Plant MI0037028



Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION I – General Information

PLEASE TYPE OR PRINT

FACILITY NAME Ferr	ACILITY NAME Fermi 2 Power Plant				NPDES PERMIT NUMBER MI0037028				
	and addres	s of each con	IDE ANALYTICAL SUPP tract laboratory or consult em 3.		ormed any analyses su	bmitted as par	t of this Application. To		
Laboratory Name TriN	Aatrix La	boratories, l	Inc.	Laboratory Name					
Street Address		Exchange		Street Address					
City Grand Rapids	State	ichigan	ZIP Code 49512	City State			ZIP Code		
Telephone (with area co (616) 975-4500		Fax (with are (616) 94		- Telephone (w	ith area code)	Fax (with ar	ea code)		
Analysis Performed	SEE ATT	ACHED AN	ALYSES	Analysis Perfe	ormed				
aboratory Name				Laboratory Na	ame		unnen het geschen einen einen Geschlechtengegen und einen einen einen einen einen einen einen einen einen einen -		
Street Address			Street Addres	S .		· · · · · ·			
City	State		ZIP Code	City	State		ZIP Code		
Telephone (with area co	de)	Fax (with are	a code)	Telephone (w	ith area code)	Fax (with ar	ea code)		
Analysis Performed		1		Analysis Perf	ormed .				
For vacant lots or e see Page II, Item 3. Nan		lings, supply th	ne owner's mailing addres	s NOT the lot o	r bullding property add City	ress. To subm State	it additional information, ZIP Code		
See Attachment V			Addroso	an	<u> </u>		•		
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EQP 4659-A (Rev. 7/2013)

Attachment V

NPDES Permit Application for Reissuance

Fermi 2 Power Plant MI0037028

Section I.13 - Adjacent Property Owners, 2014

15175 S DIXIE HWY MONROE MI 48161

GROSSE POINTE WOODS MI 48236-1562 5807 529 007 00 HATHAWAY RODNEY

20661 WEDGEWOOD DRIVE

5807 529 004 00 KOWALCHUK HELEN ESTATE C/O PATRICIA WILSON

5807 529 001 00 MICHIGAN NATURE ASSOCIATION 326 E GRAND RIVER AVE WILLIAMSTON MI 48895

NEWPORT MI 48166

NEWPORT MI 48166 5807 028 501 00 ELLISON MICHAEL & LAURIE 4702 LONG

5807 020 505 21 HUDICK MARY LOU MICHIGAN LAND CONTRACT VENDOR P O BOX 351

5807 020 504 10 TREMBLAY ROBERT & LOU ANN 5152 POINTE AUX PEAUX NEWPORT MI 48166

MASSERANT ROBERT D & LISA S 5645 TROMBLEY NEWPORT MI 48166

EL PASO TX 79927 5807 020 502 00

5038 POST . NEWPORT MI 48166 5807 019 504 00

WICKENHEISER MARY ELLEN 11520 EXETER CARLETON MI 48117 5807 017 501 10

FIX KEVIN M & WENDY L REV TRUST

5807 017 001 10

BENNETT ALICE

14848 KINGSTON DR

5807 017 002 00 INTERNATIONAL TRANSMISSION CO ITC TRANSMISSION C/O TAX DEPT 27175 ENERGY WAY NOVI MI 48377 5807 017 503 00 LANGTON VALARIAN

5807 019 504 40 BENNETT ALICE

NEWPORT MI 48166

6445 LEROUX

14848 KINGSTON DR EL PASO TX 79927

5807 020 502 30 PARKER ORVAL

5121 POINTE AUX PEAUX NEWPORT MI 48166

5807 020 505 10 NOTHNAGEL DARLIN EDWARD

5807 020 505 22

NEWPORT MI 48166

5807 028 509 00

CITY OF MONROE

MONROE MI 48161

5807 529 002 00

2707 STEINER

MONROE MI 48162

5807 529 005 00

C/O LOIS A LAWSON 1 FEDERAL DRIVE

5807 529 008 00

C/O LOIS A LAWSON I FEDERAL DRIVE

SAINT PAUL MN 55111-4056

SAINT PAUL MN 55111-4056

WATER WORKS

120 E FIRST

C/O TERRANCE LAJINESS

5182 POINTE AUX PEAUX

4704 ST CLAIR ST NEWPORT MI 48166

LAJINESS TERRANCE & LAJINESS M & J

LAKE ERIE SHORELINE LIMITED LLC

UNITED STATES FISH & WILDLIFE SERVI

UNITED STATES FISH & WILDLIFE SERVI

BISHOP HENRY WHIPPLE FEDERAL BLDG

BISHOP HENRY WHIPPLE FEDERAL BLDG

C/O LAWRENCE J VANWASSHENOVA

MONROE MI 48161

BUTLER LONNIE & TAMARA 4981 POINTE AUX PEAUX NEWPORT MI 48166

5807 019 503 00 BODENMILLER EDWARD J 4771 POINTE AUX PEAUX NEWPORT MI 48166

5807 017 300 26 FIX MICHAEL S & DEBRA L

6394 LEROUX NEWPORT MI 48166

6171 AUSTRIAN BLVD PUNTA GORDA FL 33982-2120 5807 529 009 00

NOWTCKT VIOLA 25000 RUBIN WARREN MI 48089

5807 529 003 00

5807 529 006 00

POPEJOY ROBERT G

DELLEN WILLIAM M

MONROE MI 48161-6162

PO BOX 1162

5807 528 014 00 LYON SAND & GRAVEL COMPANY 8800 DIX AVE DETROIT MI 48209

5807 020 505 23 MCCARTY GORDON M 5194 POINTE AUX PEAUX NEWPORT MI 48166

5807 020 505 20 MCCARTY GORDON M 5194 POINTE AUX PEAUX. NEWPORT MI 48166

MONROE BANK AND TRUST C/O SPECIAL ASSETS 102 E FRONT STREET

5807 020 504 00

5807 020 501 00

5807 530 049 00 SISUNG JAMES & HOLLY 5701 POST NEWPORT MI 48166

DAUM KEVIN F & JACQUELINE E 6110 LEROUX NEWPORT MI 48166

5807 789 001 00 DEWEY'S STONEY POINT ASSOC CORP 5878 SOUTH NEWPORT MI 48166

5807 789 008 00 GONZALEZ SHIRLEY & GONZALEZ MARIA 3608 NAVAHO MONROE MI 48162

5807 789 061 00 MR INVESTMENTS LLC C/O: ROBERT H DEGRAER 1555 HOLLYWOOD DRIVE MONROE MI 48162

5807 531 007 00

27175 ENERGY WAY NOVI MI 48377 5807 529 019 00 NOMICKI AIOPY 25000 RUBIN WARREN MI 48089

5807 530 014 00

5701 TOLL

BARCZEWSKI JAMIE

NEWPORT MI 48166

5807 529 016 00 INTERNATIONAL TRANSMISSION CO ITC TRANSMISSION C/O TAX DEPT

5807 529 013 00 DELLEN WILLIAM M PO BOX 1162 MONROE MI 48161-6162

5807 529 010 00 DELLEN WILLTAM M PO BOX 1162 MONROE MI 48161-6162

> 5807 529 018 00 UNITED STATES FISH & WILDLIFE SERV BISHOP HENRY WHIPPLE FED BLDG C/O LOIS A LAWSON 1 FEDERAL DRIVE FORT SNELLING MN 55111-4056 5807 529 021 00 MASSERANT RANDY 6001 TOLL NEWPORT MI 48166

5807 530 028 00 COUNTY OF MONROE DRAIN COMMISSION 1005 S RAISINVILLE MONROE MI 48161

5807 529 011 00

DELLEN WILLIAM M

5807 529 015 10

6200 LANGTON

NEWPORT MI 481.66

MONROE MI 48161-6162

HOLMES JIMMY & REBECCA

PO BOX 1162

5807 530 050 10 FLINT JERRY A & CINDY L 6577 LEROUX NEWPORT MI 48166

5807 532 038 40 VANWASHENOVA JOHN & MARGERY 4420 POINTE AUX PEAU NEWPORT MI 48166 .

5807 789 002 00 SQUIER BETH E ESTATE C/O DONALD SQUIER 5820 POINTE AUX PEAUX NEWPORT MI 48166

5807 789 010 00 GONZALEZ SHIRLEY & GONZALEZ MARIA 3608 NAVAHO MONROE MI 48162

5807 789 063 00 MR INVESTMENTS LLC C/O ROBERT H DEGRAER 1555 HOLLYWOOD DRIVE MONROE MI 48162

CHILDRESS CHARLES & BARBARA 6170 LEROUX NEWPORT MI 48166

JENKINS THOMAS D & SYLVIA S

NOVI MI 48377 5807 530 045 00 YOUNG DAVID & DEBRA 4957 RAYMOND NEWPORT MI 48166

5807 531 004 00

5807 765 244 00

NEWPORT MI 48166

5807 789 005 00

STERLING DAVID L

NEWPORT MI 48166

5807 789 012 00

MCPEEK CHARLIE

4778 SUPERIOR

NEWPORT MI 48166

5807 789 066 00

2682 NADEAU RD

MONROE MI 48162

MCDEVITT KAY

5838 POINTE AUX PEAUX

4828 ELM

5807 530 010 00 INTERNATIONAL TRANSMISSION CO ITC TRANSMISSION C/O TAX DEPT 27175 ENERGY WAY

5807 529 015 20 NEWPORT BEACH MARINA PETTY THOMAS C/O FIRST EQUITY REALTY CORP 2170 E BIG BEAVER RD TROY MI 48083-2315 5807 529 018 10 MICHIGAN NATURE ASSOCIATION 326 E GRAND RIVER AVE WILLIAMSTON MI 48895

5807 529 012 00 FULWIDER KAREN L & MACDONALD ARTH C/O KAREN L FULWIDER 1017 RIVERBANK LINCOLN PARK MI 48146

5807 852 002 00 QUALEY JOHN & KENNEDY D & BAKER M C/O: JOHN J QUALEY -4730 LONG NEWFORT MI 481.66

MOODY JASON L 6233 HIGHLAND NEWPORT MI 48166

5807 827 012 00

NEWPORT MI 48166

DRUMMONDS PATRICIA

6148 POINTE AUX PEAUX

NEWPORT MI 48166 5807 827 005 00

DEWEYS STONY POINT ASSOC INC P O BOX 66272 NEWPORT MI 48166

DEWEYS STONY POINT ASSOC INC

5807 789 176 00 QASSIS NABIH & JULIET 37119 MUIRFIELD DRIVE LIVONIA MI 48152

5807 789 241 00

5807 789 244 00

P O BOX 66272

5807 789 132 00 KOPSI CARL J 55816 US HIGHWAY 41 CALUMET MI 49913-6955

5807 789 125 00 GONZALEZ MARIA & GONZALEZ SHIRLEY 3276 CHIPPEWA MONROE MI 48162

5807 789 075 00 ODOM PHYLLIS C 399 RABBIT RUN RD CARLETON MI 48117-2100

5807 789 068 00 ACHINGER JEFFREY & HEATHER C/O JEFFREY ACHINGER 717 WHISPERLAKE RD HOLLAND OH 43528-7877

> 5807 827 014 00 STRINGHAM ROY D 5077 CLINTON STREET UNIT 1

BATAVIA NY 14020

5807 852 008 00 DIEHL JOHN H & DEBORAH L 4772 LONG NEWPORT MI 48166

BONDY ERIC & ROBIN 6211 HIGHLAND NEWPORT MI 48166

5807 827 007 00

5807 827 001 00 COSBY JACK W & CAROLE A 1201 LASALLE MONROE MI 48162

5807 789 242 00 DEWEYS STONY POINT ASSOC INC P O BOX 66272 NEWPORT MI 48166

5807 789 183 00 GONZALEZ SHIRLEY C & GONZALEZ MARIA C/O SHIRLEY C GONZALEZ 3608 NAVAHO MONROE MI 48162

5807 789 173 00 DEWEYS STONY POINT ASSOC INC P O BOX 66272 NEWPORT MI 48166

5807 789 126 00 BROOKS KENNETH B (LL) LIFE LEASE ESTATE HOLDER 17 OAK RDG E MONROE MI 48161-5767

5807 789 121 00 HAUT MICHELLE M 4775 HURON NEWPORT MI 48166

5807 789 070 00 BOERNER LAUREN & KELLY 5884 POINTE AUX PEAUX NEWPORT MI 48166

> 5807 789 124 00 RORKE MICHAEL JAMES JR 5908 POINTE AUX PEAUX

NEWPORT MI 48166

5807 789 129 00

WRIGHT JUSTIN C

5807 789 073 00 STEWART VIRGIL & ROSALIE 4780 ST CLAIR. NEWPORT MI 48166

5807 827 003 00 MASSERANT JEROME & JANIS 6255 HIGHLAND

DEWEYS STONY POINT ASSOC INC NEWPORT MI 48166

5807 789 243 00 P O BOX 66272

LIVONIA MI 48152 5807 789 215 01 QASSIS NABIH & JULIET

37119 MUIRFIELD DRIVE

LIVONFA MI 48152

NEWPORT MI 48166

5807 827 010 00

STYLES ELEANOR

6191 HIGHLAND

NEWPORT MI 48166

5807 852 001 00

NEWPORT MI 48166

5807 852 009 00

NEWPORT MI 48166

LIEDEL THOMAS D & ANNA L

4720 LONG

4802 LONG

ORD DAVID H & BONNIE L TRUST

C/O DAVID & BONNIE ORD TRUSTEES

37119 MUIRFIELD DRIVE

NEWPORT NI 48166 5807 789 174 00 QASSIS NABIH & JULIET

5944 POINTE AUX PEAUX

5807 852 011 00 SERES LONNY & LINDA 4834 LONG NEWPORT MI 48166

5807 852 018 00 LONG EST SUMMER RESORT ASSOC C/O TREASURER 4802 LONG NEWPORT MI 48166

5807 852 102 00 QUALEY JOHN J & KENNRDY DEBRA & BAKER MARILYN A 4730 LONG NEWPORT MI 48166

5807 852 111 00 SERES LONNY & LINDA 4834 LONG NEWFORT MI 48166

5807 887 003 00 LASKEY LARRY D 10623 TELEGRAPH CARLETON MI 48117

5807 887 009 00 FLIPPIN TODD D & DIANA J 9147 DOLD DRIVE FINDLAY OH 45840-1684

5807 924 015 02 DAY CHRISTINE R 6444 TRAFALGAR DR CANTON MI 48187 5807 852 013 00 SERES LONNY & LINDA 4834 LONG NEWPORT MI 48166

5807 852 019 00 LONG EST SUMMER RESORT ASSOC C/O TREASURER 4802 LONG NEWPORT MI 48166

5807 852 108 00 DIRHL JOHN & DEBORAH 4772 LONG NEWPORT MI 48166

5807 852 113 00 SERES LONNY & LINDA 4834 LONG NEWPORT MI 48166

5807 887 005 00 LASKEY LARRY D 10623 TELEGRAPH CARLETON MI 48117

5807 887 010 00 FLIPPIN TODD D & DIANA J 9147 DOLD DRIVE FINDLAY OH 45840-1684

5807 924 015 02 DAY CHRISTINE R 6444 TRAFALGAR DR CANTON MI 48187 5807 852 015 00 MONROE FRENCHTOWN RAW WATER SUPPLY CO-PARTNERSHIP 120 E FIRST ST MONROE MI 48161

5807 852 101 00 ORD DAVID H & BONNIE L TRUST C/O DAVID & BONNIE ORD TRUSTEES 4720 LONG NEWPORT MI 48166

5807 852 109 00 INTEDEL THOMAS & ANNA 4802 LONG NEWPORT MI 48166

5807 887 002 00 MCLAUGHLIN MICHAEL & BRIDGET 6108 POINTE AUX PEAUX NEWPORT MI 48166

5807 887 007 00 YOAS LOWELL & ALICE 6060 POINTE AUX PEAUX NEWPORT MI 48166

5807 887 023 00 OLIVER ROXANNE D 3938 LAKESHORE NEWPORT MI 48166

5807 924 017 02 DAY CHRISTINE R 6444 TRAFALGAR DR CANTON MI 48187

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION I – General Information

FACILITY NAM		NPDES PERMIT N	IIMBER
	Fermi 2 Power Plant		MI0037028
	ION CERTIFICATION 114(1-4), promulgated under the Michigan Act, requires that t	his Application mu	st be signed as follows:
B. Forag C. Foras D. Foras	organization, company, corporation, or authority, by a propartnership, by a general partner sole proprietor, by the proprietor municipal, state, or other public facility, by a principal ex- village manager, or clerk)		
Note: If th	e signatory is not listed above, but is authorized to sign the Ap	oplication, please pro	ovide documentation of that authorization.
designed t who mana knowledge possibility	nder penalty of law that this document and all attachments we o assure that qualified personnel properly gather and evaluat age the system, or those persons directly responsible for g o and belief, true, accurate, and complete. I am aware that of fine and imprisonment for having knowledge of violations."	te the information su gathering the inform	bmitted. Based on my inquiry of the person or persons ation, the information submitted is, to the best of my
	nd that my signature constitutes a legal agreement to cor t I possess full authority on behalf of the legal owner/perm		
			• • •
Print Name	Kent C. Scott	Title	Director - Nuclear Production

This completes Section I. Publicly-Owned-Treatment Works 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, and Nursing Homes. 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:

- I. 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.
- X 3. Section II or Section III has been completed, including any additional information or submissions.
- 2 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.
- I 6. Section VI has been completed by any facility that has Cooling Water Intake Structures.
- 7. 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.
- X 8. E-mail addresses have been provided.

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Michigan Department of Environmental Quality - Water Resources Division 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 Eacility Information

PLEASE TYPE OR PRINT		A. Paul	ity mion	nauon			
EAOIL EVANABLE	2 Power Plant	un ya un ang ang ang ang ang ang ang ang ang an	NPDES	PERMIT NUMBER	MI0037028		
 BUSINESS INFORMAT Provide up to four S	ION tandard Industrial Classi est describe the major p	fication (SIC) or North roducts or services p	h America rovided by	n Industry Classificat / this facility	ion System (NAICS)	codes, in order of econ	omic
1. 4911	2.		3,		4.	4.	
🛛 Yes. This facility	y is a primary industry (r y is a primary industry. I is not a primary industry	ndicate the primary ir			of the Appendix: <u>St</u>		r
supply meter readir	burces entering the facilings, pump capacities, e it additional information,	tc. Provide the nam	stems, and le of the s	source where approp	ows. The volume m priate (i.e., Grand Ri me or Flow Rate	ay be estimated from v ver, Lake Michigan, Cit Units	vater y of,
Municipal Supply	Frenchtown Town			.25	· · · · · · · · · · · · · · · · · · ·	MGY]
Surface Water Intake	Lake Erie			55	MGD	-	
Private Well					•		
Other:	Precipitation			5	MGD		
subsequently used cooling water and	narged by the facility and for another purpose, in then for process water, age. If the amounts are Average Flow Rate	idicate the type and indicate the amount	amount c of proces	f the last use. For swater. The amour	example, if water is	Initially used for nonco rces should approximate	ontact
Process Wastewater	10,604 *	MGY	Sanita	v Wastewater	18,300 *	GPD]
Contact Cooling Water			_	ated Storm Water	2.6	MGD	
Noncontact Cooling Water			High P	ressure Test Water		· ·	
Groundwater Cleanup			Other:	Dredge Basin	10.2 *	MGY	

* Based on 2013 data.

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 Resources Division 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

FA	CILIT	Y NAME Fermi 2 Power Plar	nt	NPDES PERMIT N	OUTFALL NUMBER 001				
1.	οU	TFALL INFORMATION. Instructions	for this item are on Page 3 of th	e Appendix.	aladdaadhaladhayaa taraanay addaa qaysaa yaa ay ay ahaa ay ahaa ahaa ahaa a	annan an a			
	A.	Receiving Water Ottawa Stor	у	Hydrologic Uni	t Code 04100001				
	В,	County Monroe	· ·	Township	renchtown				
	C,	Town Range T6S R10E	Section 1/4 21 NE	1/4, 1/4 NW					
	D.	Latitude 41.964843		Longitude	Longitude -83.254496				
	E.	Type of Wastewater Discharged (c	heck all that apply to this outfall)	:					
		Contact Cooling	Groundwater Cleanup	🔲 Hydrosta	tic Pressure Test	Noncontact Cooling Water			
		X Process Wastewater	Sanitary Wastewater	🔲 Storm W	ater - not regulated	Storm Water - regulated			
		Storm water subject to effluent	guidelines (indicate under which	category):					
	Others (see Table 8 - Other Common Types of Wastewater on Page 17 in the Appendix)								
	F. The Maximum Design Flow Rate for this outfall is: <u>45.1</u> MGD								
8	G	What is the Maximum Authorized Flow for this outfall for the next five	• •	nal Dischargers	MGY (Continue with 5.1 MGD (Continue with)				
	н.	Seasonal Discharge:	· · · · · · · · · · · · · · · · · · ·		N . N				
		List the discharge periods (by mon	,	the space provided					
		From	Through		Actual Discharge Volume ((MGD) Annual Total			
		From	Through		Actual Discharge Volume (MGD)			
· .		From	Through		Actual Discharge Volume (MGD)			
		From	Through		Actual Discharge Volume (MGD)			
	١.	Continuous Discharge: How often is there a discharge from	n this outfall (on average)?	Hours/Da	y <u>365</u> Days/Year				
		Batch dischargers are required t	o provide the following additio	nal information:					
		Is there effluent flow equalization?	🗆 Yes 🛛 No	•					
		Batch Peak Flow Rate:	Numbe	er of batches discha	ged per day:				
			Minimum	Aver	age	Maximum			
		Batch Volume (gallons)							
		Batch Duration (minutes)	· · · · · · · · · · · · · · · · · · ·						

EQP 4659-C (Rev. 7/2013)

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

		NPDES PERMIT NUMBER	OUTFALL NUMBER						
·	Fermi 2 Power Plant	MI0037028	001						
F d li fi ti	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 on Page 11 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 (5) 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: <u>Closed</u> -	cycle Cooling System Blowdown.							
E	· · · · · · · · · · · · · · · · · · ·								
· c		owdown from the Plant's Closed-cylcle Cooli oling tower blowdown. Maximum expected							
ŀ	PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Monitoring Point 001D</u> - Processed Radwaste Wastewater.								
E	B. SIC or NAICS code: 4911								
Ċ	C. Describe the process and provide measures of production: Processed Radwaste wastewater from the plant floor drains and equipment drains. Maximum anticipated flow = 0.216 MGD								
ļ	PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Moni</u> torir	ng Point 001E - Chemical & non-chemical me	etal cleaning waste.						
l I	B. SIC or NAICS code: <u>4911</u>								
(C. Describe the process and provide measures of production.	eated chemical and non-chemical metal clean ndenser and heat exchanger cleaning. Maxi w = 0.50 MGD.							
,	PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Monitoria</u>	ng Point 001B - Residual Heat Removal Sys	tem service water.						
	B. SIC or NAICS code: 4911	Ŷ							
1		owdown from the plant's Residual Heat Rem stem. Maximum anticipated flow ≓ 1.44 MG							
	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 Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION III – Industrial and Commercial Wastewater B. Outfall Information

LEASE TYPE	ORPRINT							
FACILITY NA	Fermi 2 Power Plant	NPDES PERMIT NUMBER MI003702	8 OUTFAI	LNUMBER	001			
XI Che Please I	ck this box if additional information is includ Note: Rule 323,1062 allows the use of eithe	ed as an atlachmei ar Escherichia coli	ITS. Instructions for this item are on Page 4 ni. To submit additional information, see Pa or Fecal Collform Bacteria as an indicator th	ge II, Item 3. at effluent has be	een disinfected. The D		licator selecte	ed below in the
	sued based on this Application. Use I	Escherichia coli as	an indicator of disinfection, 🔲 Use		Bacleria as an Indicalo	r of disinfection.		1 - 4 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5
Submitted yia DMRs or e-DMRs	Waiver Request and the Radionale Benind the Request		u Parameter	Maximum Monthly Concentratio	Maximum Daily n Concentration	Units	Number of Analyses	: Sample Type
		Biochemical Oxy	rgen Demand – five day (BOD5)			rng/l		Grab
		Chemical Oxyge	n Demand (COD)			mg/l		Grab
		Total Organic Ca	irbori (TOC)			mg/i	-	Grab 24-Hr Com
	· · · ·	Ammonia Nitrogen (as N)				mg/l		Grab
		Total Suspended	I Solids			mg/i		Grab 24-Hr Com
	Waiver Request Not Required	Total Dissolved	Solids			mg/l		Grab 24-Hr Com
	Waiver Request Not Required	Total Phosphoru	s (as P)			rńg/i		Grab 24-Hr Com
П	Walver Request Not Required	Fecal Coliform B	acteria (report geometric means)		Maximum 7-day	counts/100ml		Grab
	Waiver Request Not Required	Escherichia coll	(report geometric means)		Maximum 7-day	counts/100 ml		Grab
	Waiver Request Not Required	Total Residual C	hlorine			🗍 mg/l □ μg/l		Grab
	Waiver Request Not Required	Dissolved Oxyge	n	Do Not Uso	Minimum Daily	mg/l		Grab
凶		pH (report maxin	num and minimum of Individual samples)	Minimum	Maximum	standard units		Grab
X		Temperalure, Su	immer			□•F □•C		Grab
凶		Temperature, Wi	inter			□°F □°C		Grab
	Walver Request Not Required	Oil & Grease				mg/l		Grab

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Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

FAC	Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 001
Not 4.	e: For questions on this page, Tables 1 – 5 are found in the Appendi PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION Existing primary industries that discharge process wastewater are analysis for <u>selected</u> organic pollutants identified in Table 2 (as deterr Industrial Category), and all of the pollutants identified in Table 3. Exist permittee-collected effluent analysis for any other chemical listed in Tab	required to submit the results of at least one punited from Table 1, Testing Requirements for Or ing primary industries are required to also provide	rganic Toxic Pollutants by the results of at least one
	In addition, submit the results of all other effluent analyses performed wi		
	New primary industries that propose to discharge process wastew chemical listed in Tables 2 and 3 expected to be present in the facility's	rater are required to provide an estimated efflue	
5.	DIOXIN AND FURAN CONGENER INFORMATION Existing industries that use or manufacture 2,3,5-trichlorophenoxy 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (EI 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or present in the facility's effluent, are required to submit the results of Table 6. All effluent analyses for dioxin and furan congeners shall be co	rbon); 0.0-dimethyl 0-(2,4,5-trichlorophenyl) pho has reason to believe that 2,3,7,8-Tetrachlorodi at least one effluent analysis for the dioxin and	osphorothionate (Ronnel); Ibenzo-p-dioxin (TCDD) is
	In addition, submit the results of all other effluent analyses performed v	vithin 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-trichlorophen 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (E 2,4,5-trichlorophenoi (TCP); or hexachlorophrene (HCP), or knows or present in the facility's effluent, shall provide estimated effluent concent	rbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) pho has reason to believe that 2,3,7,8-Tetrachlorod	osphorothionate (Ronnel); ibenzo-p-dloxin (TCDD) is
6,	OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION Existing secondary industries or existing primary industries that least one effluent analysis for any chemical listed in Tables 2 and 3 kno		
	In addition, submit the results of all other effluent analyses performed w	ithin the last three years for any chemical listed in	Tables 2 and 3.
	New secondary industries or new primary industries that propose effluent concentration for any chemical listed in Tables 2 and 3 expecte		d to provide an estimated
7.	ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION All existing industries, regardless of discharge type, are required to p known or believed to be present in the facility's effluent, and a meas known or believed to be present in the facility's effluent. In addition, su	ured or estimated effluent concentration for any	chemical listed in Table 5
	for any chemical listed in Tables 4 and 5.		
	New industries, regardless of discharge type, are required to provide expected to be present in the facility's effluent.	an estimated effluent concentration for any chemic	cal listed in Tables 4 and 5
8.	INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED New or existing industries, regardless of discharge type, are require otherwise injurious chemicals known or believed to be present in the Quantitative effluent data for these chemicals that is less than five year	facility's effluent that have not been previously id	ncentration for any toxic or lentified in this Application.
	NOTE: All effluent data submitted in response to questions 4, 5, 6 information, see Page ii, Item 3. If the effluent concentrations are est shall be completed for each data row: Parameter, CAS No., Con requirements, see Page II, Item 5. Tables 1, 2, and 3 can be found in t	imated, place an "E" in the "Analytical Method" concentration(s), Sample Type, and Analytical Me	olumn. The following fields
	If Alternate Test Procedures have been approved for any paramet instructions.	er listed above (Items 4. through 8.), see Pag	e II, Item 5. for additional

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

S, Outian mornation

FACILITY NA	ME Fermi 2 Power Plant	gegentus con active active and third fills that is a shifting	NPDES PERMIT NUMBER MI0037028				OUTFALL NUMBER 001	
Submitted	SAMPLE DATE 🔿							
via DMRs or e-DMRs	PARAMETER	CAS No.	Conc. (µg/l)	Conc. (µg/I)	Conc. (µg/l)	Conc. (μg/l)	Sample Type	Analytical Method
	SEE ATTACHMENT VI		- -		- k			
			•					-
				-				
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Attachment VI

NPDES Permit Application for Reissuance

Fermi 2 Power Plant MI0037028

Outfall 001 Analytical Data

Note: Also contains Fermi Intake Analytical Data



December 19, 2013

DTE - Ferml-2 Attn: Ms. Mary Hana 6400 North Dixie Highway, 200 TAC Newport, MI 48166

Project: Permit Renewal - Fermi, 2013

Dear Ms. Mary Hana,

Enclosed is a copy of the laboratory report for the following work order(s) received by TriMatrix Laboratorles:

Work Order	Received	Description
1312032	12/03/2013	Laboratory Services

This report relates only to the sample(s) as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) and/or one of the following certification programs:

ACLASS DoD-ELAP/ISO17025 (#ADE-1542); DEP (#88-0730/12-056-0); (#E87622-24); Arkansas Florida DEP Georgia EPD (#E87622-24); Illinois DEP (#200026/003059); Kansas DPH (#E-10302); Kentucky DEP (#0021); Michigan DPH (#0034); New York ELAP (#11776/48855); Louisiana DEP (#83658); Minnesota DPH (#491715); Texas CEQ (#T104704495-13-3); Virginia DCLS (#460153/1622); Wisconsin DNR North Carolina DNRE (#659); (#999472650); USDA Soil Import Permit (#P330-12-00236).

Any qualification or narration of results, including sample acceptance requirements and test exceptions to the above referenced programs, is presented in the Statement of Data Qualifications and Project Technical Narrative sections of this report. Estimates of analytical uncertainties and certification documents for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

ferming W. J. Fick

Jennifer L. Rice Project Chemist

Page 1 of 59

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5560 Corporate Exchange Court SE 🔸 Grand Rapids, MI 49512. 🔶 616.975.4500 🔸 Fax 616.942.7463 🔶 www.trimatrixlabs.com



Polychlorinated Biphenyls (PCBs) by EPA Method 608

Narrative: Due to sample volumes, matrix specific quality control (QC) was not performed on this batch. A blank and a Laboratory Control Sample make up the batch QC.

Analysis: USEPA-608

Sample/Analyte: 1312032-14 Intake Composite 1312032-15 001 Composite

Page 2 of 59

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Volatile Organic Compounds by EPA Method 624

Narrative: Sample was not preserved per 40 CFR Part 136.3, Table II: a sample collected for Acrolein must be pH adjusted to a range of 4-5 or analyzed within 3 days of collection.

Analysis: USEPA-624

Sample/Analyte: 1312032-06 Outfall 001 VOC Lab Composite 1312032-13 Intake VOC Lab Composite

Page 3 of 59

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Semivolatile Organic Compounds by EPA Method 625

Narrative: Due to sample volumes, matrix specific quality control (QC) was not performed on this batch. A blank and a Laboratory Control Sample make up the batch QC.

Analysis: USEPA-625

Sample/Analyte: 1312032-14 Intake Composite 1312032-15 001 Composite

Page 4 of 59



Total Metals by EPA 200 Series Methods

Narrative: The CRL recovery for this analyte was outside of the laboratory control limits.

Analysis: USEPA-200.8

3L09035-CRL2

Selenium

Page 5 of 59

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	Physical/Chemical Parameters by EPA/APHA/A	STM Methods
Narrative:	The CRL recovery for this analyte was outside of the laboratory control i	imits.
Analysis:	SM 5540 C-2011	
•	3L04037-CRL1	Surfactants, MBAS
	-	
Narrative:	The MS or MSD recovery, but not both, was outside the control limit. The limit.	he RPD is within the control
Analysis;	USEPA-351.2 Rev. 2.0	
Sample/Analyte:	1312032-15 001 Composite	. Nitrogen, Total Kjeldahl
Narrative:	The RL for this analysis was elevated due to insufficient sample volume	or weight received.
Analysis:	USEPA-1664A	
Sample/Analyte:	1312032-10 Intake Grab Day 2	HEM; Oil & Grease
	·	
Narrative:	A.C.U. stands for Apparent Color Units. Color is pH dependent and its v with pH. The method requires that the pH of the sample be determined A.C.U value. The sample pH was: 7.12.	
Analysis:	SM 2120 B-2011	
Sample/Analyte:	1312032-14 Intake Composite	Color (Apparent)
	1312032-15 001 Composite	Color (Apparent)
Narrative;	The referenced method requires analysis occur within 15 minutes of sar performed at the laboratory on 12-4-13.	nple collection. Analysis was
Analysis:	SM 4500-SO3 B-2011	
Sample/Analyte:	1312032-14 Intake Composite	Sulfite
	1312032-15 001 Composite	Sulfite
Narrative:	The mg/L MBAS result reported should be considered mg MBAS/L (calcu weight 320).	ulated as LAS, molecular
Analysis:	SM 5540 C-2011	
Sample/Analyte:	: 1312032-14 Intake Composite	Surfactants, MBAS
	1312032-15 001 Composite	Surfactants, MBAS
Narrative:	Distillation pretreatment was not performed. Common interfering lons solution. Fluoroborates (if present) may result in a low blas of the repo	
Analysis:	: SM 4500-F C-2011	
Sample/Analyte:	: 1312032-14 Intake Composite	Fluoride
. *	1312032-15 001 Composite	Fluoride

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STATEMENT OF DATA QUALIFICATIONS

Volatile Organic Compounds by EPA Method 624

Qualification:	The corresponding CCV for this analytical batch had a recovery exceeding the upper control limit of the method. A positive result for this analyte in any associated samples are considered estimated. Non-detectable results are not qualified.						
Analysis:	USEPA-624						
Sample/Analyte:	1312032-06	Outfall 001 VOC Lab Composite	Chloroethane				
	1312032-13	Intake VOC Lab Composite	Chloroethane				
Qualification:		l to preserve this sample has the potential to degra on or other rapid chemical reaction. The reporting lered estimated.					

Analysis: USEPA-624

Sample: 1312032-06 1312032-13 Outfall 001 VOC Lab Composite Intake VOC Lab Composite

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STATEMENT OF DATA QUALIFICATIONS

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The following reported test methods and analyte(s) are exceptions to our NELAP Fields of Accreditation, or for which accreditation is not required, applicable, or available.

Analysis: EPA-351.2/4500-NH3G

Analyte(s): Nitrogen, Organic

Analysis: SM 4500-SO3 B-2011 Analyte(s): Sulfite



ANALYTICAL REPORT

Client:	DTE - Fermi-2	Work Order:	1312032	
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	Outfall 001 Grab Day 1	Sampled:	12/2/13 13:00	
Lab Sample ID:	1312032-01	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit :	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Chiorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	12/02/13 13:00	JAE	1313078
Oxygen, Dissolved (Field)	7.57	0.10	mg/L	. 1	SM 4500-0 G	12/02/13 13:00	JAE	1313078
pH (Field)	8.31	1.00	pH Units	1	SN 4500-H B-2011	12/02/13 13:00	JAE	1313078
Temperature °C (Field)	16.0	0.1	°C	1	SM 2550 B	12/02/13 13:00	JAE	1313078

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ANALYTICAL REPORT

Client: Project: Client Sample ID: Lab Sample ID: Matrix:	DTE - Fermi-2 Permit Renewal - Fermi, 2013 Outfall 001 LLHg 1312032-02 Waste Water	Work Order: Description: Sampled: Sampled By: Received:	1312032 Laboratory Services 12/2/13 12:44 J. Elsey 12/3/13 17:00	
Matrix:	Waste Water	Received:	12/3/13. 17:00	

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	۰.	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Mercury	7.84	2.50		ng/L	5	USEPA-1631E	12/05/13 12:43	MSM	1313075

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ANALYTICAL REPORT

Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Outfall 001 Grab Day 2	Sampled:	12/3/13 12:35
Lab Sample ID:	1312032-03	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	. RL	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Phenolics, Total	<0.0500	0,0500	mg/L	1	USEPA-420.4	12/09/13 10:39	LMA	1313065
Chlorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	12/03/13 12:35	JAE	1313078
Oxygen, Dissolved (Field)	6.89	0,10	mg/L	1	SM 4500-O G	12/03/13 12:35	JAE	1313078
pH (Field)	8.56	1.00	pH Units	1	SM 4500-H 8-2011	12/03/13 12:35	JAE	1313078
Temperature °C (Field)	19,0	0.1	۴C	1	SM 2550 B	12/03/13 12:35	JAE	1313078
Cyanide, Available	<2.0	2.0	ug/L	1	USEPA OIA-1677	12/09/13 12:10	LMA	1313173
HEM; Oll & Grease	<5.00	5.00	mg/L	1	USEPA-1664A	12/10/13 08:00	WAH	1313184
				1		• •		

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Outfall 001 LLHg Duplicate	Sampled:	12/2/13 12:47
Lab Sample ID:	1312032-04	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
PIQUIX	Whate Which	Received	12/0/10 1/100

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL		ution actor Method	Date Time Analyzed By	QC Batch
Mercury	7.51	0.500	ng/L	1 USEPA-1631E	12/05/13 12:01 MS	M 1313075

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		•		
Client:	DTE - Fermi-2	Work Order:	1312032	
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	Outfall 001 Field Blank	Sampled:	12/2/13 12:41	
Lab Sample ID;	1312032-05	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed By	QC Batch
Mercury	<0.500	0.500	ng/L	1	USEPA-1631E	12/05/13 12:05 MSM	1313075

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Outfall 001 VOC Lab Composite	Sampled:	12/3/13 12:35
Lab Sample ID:	1312032-06	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Unit:	ug/L	Prepared:	12/6/13 7:00 By: DLV
Dilution Factor:	1	Analyzed:	12/6/13 16:34 By: DLV
QC Batch:	. 1313145	Analytical Batch:	3L09003

*Volatile Organic Compounds by EPA Method 624

CAS Number	Analyte	Analytical Result	RL
CAS Number	Analyte	IN SHIE	NL .
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	<‡.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

Continued on next page

*See Statement of Data Qualifications

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Client:	DTE - Fermi-2	Work Order:	1312032		
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services		
Client Sample ID:	Outfall 001 VOC Lab Composite	Sampled:	12/3/13 12:35		
Lab Sample ID;	1312032-06	Sampled By:	J. Elsey		
Matrix:	Waste Water	Received:	12/3/13 17:00		
Unit:	ug/L	Prepared:	12/6/13 7:00	By:	DLV
Dilution Factor:	1	Analyzed:	12/6/13 16:34	By:	DLV
OC Batch:	1313145 -	Analytical Batch:	3L09003		

*Volatile Organic Compounds by EPA Method 624 (Continued)

Surrogates:	% Recovery	Control Limits
Dibromofluoromethana	98	85-118
1,2-Dichloroethane-d4	<i>99</i>	<i>87-122</i>
Toluene-d8	98	85-113
4-Bromofluorobenzene	. 93	82-110

*See Statement of Data Qualifications

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Fermi LLHg Trip Blank	Sampled:	12/2/13 0:00
Lab Sample ID:	1312032-07	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed By	QC Batch
Mercury	<0.500	0.500	ng/L	1	USEPA-1631E	12/05/13 12:08 MSM	1313075

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Client:	DTE - Fermi-2	Work Order:	1312032	
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	Intake Grab Day 1	Sampled:	12/2/13 12:25	
Lab Sample ID:	1312032-08	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Chiorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	12/02/13 12:25	JAE	1313078
Oxygen, Dissolved (Field)	6.43	0.10	mg/L	1	SM 4500-O G	12/02/13 12:25	JAE -	1313078
pH (Field)	7.51	1.00	pH Units	1	SM 4500-H B-2011	12/02/13 12:25	JAE	1313078
Temperature °C (Field)	5.0	0.1	°C	1	SM 2550 B	12/02/13 12:25	JAE	1313078

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Intake LLHg	· Sampled:	12/2/13 12:02
Lab Sample ID:	1312032-09	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Dilution Unit Factor	Method	Date Time Analyzed By	QC Batch
Mercury	3.61	0.500	ng/L 1	USEPA-1631E	12/19/13 10:56 MSM	1313536

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		•		
Client:	DTE - Fermi-2	Work Order;	1312032	
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	Intake Grab Day 2	Sampled;	12/3/13 12:00	
Lab Sample ID:	1312032-10	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Phenolics, Total	<0.0500	0,0500	mg/L	1	USEPA-420.4	12/09/13 10:39	LMA	1313065
Chlorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	12/03/13 12:00	JAE	1313078
Oxygen, Dissolved (Field)	7.56	0.10	mg/L	1	SM 4500-O G	12/03/13 12:00	JAE	1313078
pH (Field)	7.57	1.00	pH Units	1	SM 4500-H B-2011	12/03/13 12:00	JAE	1313078
Temperature °C (Field)	12.0	0.1	°C	1	SM 2550 B	12/03/13 12:00	JAE	1313078
Cyanide, Available	<2.0	2.0	ug/L	1	USEPA OIA-1677	12/09/13 12:11	LMĄ	1313173
HEM; Oll & Grease	<5.10	5,10	mg/L	1	USEPA-1664A	12/10/13 08:00	WAH	1313184

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Project:Permit Renewal - Fermi, 2013Description:Laboratory ServicesClient Sample ID:Intake LLHg DuplicateSampled:12/2/1312:05Lab Sample ID:1312032-11Sampled By:J. Elsey	Client:	DTE - Fermi-2	Work Order:	1312032
	Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Lab Sample ID: 1312032-11 Sampled By: J. Elsey	Client Sample ID:	Intake LLHg Duplicate	Sampled:	12/2/13 12:05
	Lab Sample ID:	1312032-11	Sampled By:	J. Elsey
Matrix: Waste Water Received: 12/3/13 17:00	Matrix:	Waste Water	Received:	12/3/13 17:00

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	3.50	0.500	ng/L	1 .	USEPA-1631E	12/19/13 09:14	MSM	1313536

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Intake LLHg Field Blank	Sampled:	12/2/13 11:59
Lab Sample ID:	1312032-12	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
	•		

•	Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Mercury	< 0. 500	0.500	ng/L	· 1	USEPA-1631E	12/05/13 12:19	MSM	1313075

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Intake VOC Lab Composite	Sampled:	12/3/13 12:00
Lab Sample ID:	1312032-13	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Unit:	ug/L	Prepared:	12/6/13 7:00 By: DLV
Dilution Factor:	1	Analyzed:	12/6/13 17:03 By: DLV
QC Batch:	1313145	Analytical Batch:	3L09003

*Volatile Organic Compounds by EPA Method 624

		Analytical	
CAS Number	Analyte	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
75-0 9 -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

Continued on next page

*See Statement of Data Qualifications

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Intake VOC Lab Composite	Sampled:	12/3/13 12:00
Lab Sample ID:	1312032-13	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Unit:	ug/L	Prepared:	12/6/13 7:00 By: DLV
Dilution Factor:	1	Analyzed:	12/6/13 17:03 By: DLV
QC Batch:	1313145	Analytical Batch:	3L09003

*Volatile Organic Compounds by EPA Method 624 (Continued)

Surrogates:	% Recovery	Control Limits
Dibromofluoromethane	98	85-118
1,2-Dichloroethane-d4	98	87-122
Toluene-d8	<i>99</i>	85-113
4-Bromofluorobenzene	95	82-110

*See Statement of Data Qualifications

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Client:	DTE - Fermi-2	Work Order:	1312032		
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services		
Client Sample ID:	Intake Composite	Sampled:	12/3/13 12:20		
Lab Sample ID:	1312032-14	Sampled By:	J. Elsey		
Matrix:	Waste Water	Received:	12/3/13 17:00		
Unit:	ug/L	Prepared:	12/6/13 7:31	By:	ALK
Dilution Factor:	1	Analyzed:	12/13/13 3:08	By:	ASC
QC Batch:	1313086	Analytical Batch:	3L13025		

Polychlorinated Biphenyls (PCBs) by EPA Method 608

	*		Analytical		
Analyte			Result	RL	
PCB-1016			<0.20	0.20	
PCB-1221			<0.20	0.20	
PC8-1232			<0.20	0.20	
PCB-1242			<0.20	0.20	
PCB-1248			<0.20	0.20	
PCB-1254			<0.20	0.20	
PCB-1260			<0.20	0.20	
	% Recovery	Control Limits			
	86	45-134			
9	71	27-126			
	PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260	PCB-1016 PCB-1221 PCB-1232 PCB-1232 PCB-1248 PCB-1254 PCB-1254 PCB-1260 % Recovery <i>86</i>	PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260 % Recovery Control Limits 86 45-134	Analyte Result PCB-1016 <0.20	Analyte Result RL PCB-1016 <0.20

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client: Project:	DTE - Fermi-2 Permit Renewal - Fermi, 2013	Work Order: Description:	1312032 Laboratory Services
Client Sample ID:	Intake Composite	Sampled:	12/3/13 12:20
Lab Sample ID:	1312032-14	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Únit:	ug/L	Prepared:	12/5/13 8:00 By: ALK
Dilution Factor:	1 "	Analyzed:	12/11/13 6:36 By: DWJ
QC Batch:	1313027	Analytical Batch:	3L11050

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-chlorolsopropyl) Ether	<5.0	5.0
91-58-7	2-Chioronaphthalene	<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-butyi 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

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Client:	DTE - Fermi-2	Work Order:	1312032	
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	Intake Composite	Sampled:	12/3/13 12:20	
Lab Sample ID:	1312032-14	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	
Unit:	ug/L	Prepared	12/5/13 8:00 By: ALK	
Dilution Factor:	1	Analyzed:	12/11/13 6:36 By: DWJ	
QC Batch:	1313027	Analytical Batch:	3L11050	

Semivolatile Organic Compounds by EPA Method 625 (Continued)

	· · ·	Analytical	
CAS Number	Analyte	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-Nitrophenoi	<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	Pentachiorophenol	<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

Continued on next page

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	Intake Composite	Sampled:	12/3/13 12:20
Lab Sample ID:	1312032-14	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Unit:	ug/L	Prepared:	12/5/13 8:00 By: ALK
Dilution Factor:	1	Analyzed:	12/11/13 6:36 By: DWJ
QC Batch:	1313027	Analytical Batch:	3L11050
	1313027	• •	3L11050

Semivolatile Organic Compounds by EPA Method 625 (Continued)

Number	Analyte			Analytical Result	RL	·
Surrogates:		% Recovery	Control Limits			
2-Fluorophenal		40	18-74			
Phenol-d6		26	12-47			
Nitrobenzene-d5		80	34-122			
2-Fluoroblphenyl		81	36-136			
2,4,6-Tribromophenol		56	19-131			
o-Terphenyl		84	27-138			

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Client:	DTE - Fermi-2	Work Order:		1312032
Project:	Permit Renewal - Fermi, 2013	Description:		Laboratory Services
Client Sample ID:	Intake Composite	Sampled:		12/3/13 12:20
Lab Sample ID:	1312032-14	Sampled By:	•	J, Elsey
Matrix:	Waste Water	Received:		12/3/13 17:00

Total Metals by EPA 200 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Aluminum	0.65	0.050	mg/L	1	USEPA-200.7	12/09/13 12:12	KLV	1313073
Antimony	<1.0	1.0	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Arsenic	1.1	1.0	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Barium	26	5.0	ug/L	1	USEPA-200.8	12/09/13 13;27	MSM	1313011
Beryllium	<1.0	1.0	ug/L	.1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Boron	27	20	ug/L	1	USEPA-200.8	12/10/13 10:19	MSM	1313011
Cadmlum	<0.20	0.20	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Chromium	<10	10	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Cobalt	<10	10	ug/L	1	USEPA-200.7	12/09/13 12:12	KLV	1313073
Copper	3.7	1.0	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Iron	1.0	0.010	mg/L	1	USEPA-200.7	12/09/13 15:40	CKD	1313073
Lead	1.2	1.0	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Magnesium	11	0.50	mg/L	1	USEPA-200.7	12/09/13 15:40	CKD	1313073
Manganese	0.031	. 0.010	mg/L	1	USEPA-200.7	12/09/13 12:12	KLV	1313073
Molybdenum	<0.10	0.10	mg/L	1	USEPA-200.7	12/05/13 09:54	KLV	1312991
Nickel	<5.0	5.0	ug/L	1	USEPA-200,8	12/09/13 13:27	MSM	1313011
Selenium	<1.0	1.0	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Silver	<0.50	0.50	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Thallium	<1.0	1.0	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011
Tin	<0.20	0.20	mg/L	1	USEPA-200.7	12/05/13 09:54	KLV	1312991
Titanium	<0.10	0.10	mg/L	1	USEPA-200.7	12/05/13 09:54	KLV	1312991
Zinc	11	10	ug/L	1	USEPA-200.8	12/09/13 13:27	MSM	1313011

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Work Order: 1312032	
3 Description: Laboratory S	ervice
Sampled: 12/3/13 12:	20
Sampled By; J. Elsey	
Received: 12/3/13 17:	00
201	Sampled: 12/3/13 12:2 Sampled By; J. Elsey

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Hardness as CaCO3	147	2	mg/L	1	SM 2340 C-2011	12/06/13 14:30	KAR	1313099
BOD, (5-Day)	<4.0	4.0	mg/L	1	SM 5210 B-2011	12/04/13 11:37	SKA	1313038
Bromide	<0.50	0.50	mg/L	1	ASTM D 1246-05	12/11/13 13:00	SLL	1313240
Chemical Oxygen Demand	22	5.0	mg/L	1	SM 5220 D-2011	12/04/13 14:59	SLL	1313025
Color (Apparent)	15.0	5.00	A.C.U.	1	SM 2120 B-2011	12/04/13 14:23	CAC	1313019
Fluoride	0.16	0,10	mg/L	1	SM 4500-F C-2011	12/13/13 10:40	SLL	1313326
Surfactants, MBAS	<0.0250	0.0250	mg/L	1	SM 5540 C-2011	12/04/13 12:14	WAH	1313020
Phosphorus, Total	0.148	0.0100	mg/L	1	SM 4500-P E-2011	12/10/13 10:09	KAR	1313144
Residue, Dissolved @ 180° C	190	50	mg/L	1	SM 2540 C-2011	12/05/13 13:00	WAH	1313033
Residue, Suspended	25.7	3,3	mg/L	1	SM 2540 D-2011	12/05/13 15:30	WAH	1313036
Sulfate	30	5.0	mg/L	1	ASTM D516-90 (07)	12/12/13 09:45	LMA	1313298
Sulfide, Total	<0.020	0.020	mg/L	1	SM 4500-52 D-2011	12/06/13 15:28	WAH	1313149
Sulfite	<1.0	1.0	mg/L	1	SM 4500-SO3 B-2011	12/04/13 13:50	CAC	1313110
Carbon, Total Organic	3.6	0.50	mg/L	1	SM 5310 C-2011	12/05/13 19:16	KAR	1313095
Nitrogen, Ammonia	0.079	0.050	mg/L	1	SM 4500 NH3 G-2011	12/11/13 11:15	CLB	1313163
Nitrogen, Nitrate+Nitrite	0,48	0.050	mg/L	1	5M 4500-NO3 F-2011	12/04/13 13:19	CAC	1313118
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351,2/4500-NH3G	12/12/13 14:35	CLB	1313201
Nitrogen, Total Kjeldahl	<0.50	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	12/09/13 11:45	CLB	1313050
Nitrogen, Inorganic	0.56	0.050	mg/L	1	[CALC]	12/11/13 11:15	CAC	[CALC]

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Client:	DTE - Fermi-2		Work Order:	1312032		
Project:	Permit Renewal - Fermi, 2013		Description:	Laboratory Services		
Client Sample ID:	001 Composite		Sampled:	12/3/13 12:55		
Lab Sample ID:	1312032-15		Sampled By:	J. Elsey		
Matrix:	Waste Water		Received:	12/3/13 17:00		
Unit:	ug/L		Prepared:	12/6/13 7:31	By:	ALK
Dilution Factor:	1	<i></i>	Analyzed:	12/13/13 3:36	By:	ASC .
QC Batch:	1313086		Analytical Batch:	3L13025		

Polychlorinated Biphenyls (PCBs) by EPA Method 608

				Analytical		
CAS Number	Analyte			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:		% Recovery	Control Limits		:	
Decachlorobiphenyl		73	45-134			
Tetrachloro-m-xylen	e .	64	27-126			

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	001 Composite	Sampled:	12/3/13 12:55
Lab Sample ID:	1312032-15	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Unit:	ug/L	Prepared:	12/5/13 8:00 By: ALK
Dilution Factor:	1	Analyzed:	12/11/13 7:08 By: DWJ
QC Batch:	1313027	Analytical Batch:	3L11050

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

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	001 Composite	Sampled:	12/3/13 12:55
Lab Sample ID:	1312032-15	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00
Unit:	ug/L	Prepared:	12/5/13 8:00 By: ALK
Dilution Factor:	1	Analyzed:	12/11/13 7:08 By: DWJ
QC Batch:	1313027	Analytical Batch:	3L11050

Semivolatile Organic Compounds by EPA Method 625 (Continued)

Sid-Solution-2-methylphenol Cold 20 51-28-5 2,4-Dintrophenol <20 20 121-14-2 2,4-Dintrobluene <5.0 5.0 606-20-2 2,6-Dintrobluene <5.0 5.0 117-84-0 Di-n-ockyl Phthalate <5.0 5.0 122-66-7 1,2-Diphenyllydraine <5.0 5.0 127-84-0 Fluoranthene <5.0 5.0 126-64-0 Fluoranthene <5.0 5.0 206-44-0 Fluoranthene <5.0 5.0 86/73-7 Fluoranthene <5.0 5.0 8673-8 Hexachlorobutadiene <5.0 5.0 7/-74-4 Hexachlorobutadiene <5.0 5.0 67-72-1 Hexachlorobutadiene <5.0 5.0 193-39-5 Indeno(1,2,3-cd)pyrene <5.0 5.0 192-23 Naphthalene <5.0 5.0 192-23 Naphthalene <5.0 5.0 100-02-7 4-Nitrobenzene <5.0 5.0	CAS Number	Analyte	Analytical Result	RL
121.14-2 2,4-Dinitroluene <5.0 5.0 606-20-2 2,6-Dinitroluene <5.0	534-52-1	4,6-Dinitro-2-methylphenol	<20	20
G66-20-2 2,6-Dintrobluene <5.0	51-28-5	2,4-Dinitrophenol	<20	20
117-84-0 Dir-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 Hexachlorobetzene 5.0 5.0 87-69-3 Hexachlorobutadiene 5.0 5.0 77-47-4 Hexachlorocyclopentadiene 5.0 5.0 97-77-21 Hexachlorocyclopentadiene 5.0 5.0 97-77-21 Hexachlorocyclopentadiene 5.0 5.0 97-77-21 Hexachlorocyclopentadiene 5.0 5.0 97-77-21 Hexachlorocyclopentadiene 5.0 5.0 97-95-3 Indenc(1,2,3-c/Dyree 5.0 5.0 98-95-3 Indency(1,2,3-c/Dyree 5.0 5.0 99-95-3 Nitrobenzene 5.0 5.0 91-20-3 Nitrobenzene 5.0 5.0 92-95-5 Niltrobenzen	121-14-2	2,4-Dinitrotoluene	<5.0	5.0
122-66-7 1,2-01phenylhydrazine <5.0 5.0 117-81-7 Bis(2-ethylhexyl) Phhalate <5.0	606-20-2	2,6-Dinitrotoluene	<5.0	5.0
11-81-7 Bis(2-ethyliesyl) Phthalate S.0 206-44-0 Fluoranthene S.0 S.0 86-73-7 Fluorene S.0 S.0 118-74-1 Hexachlorobenzene S.0 S.0 87-68-3 Hexachlorobyladlene S.0 S.0 77-47-4 Hexachlorocyclopentadlene S.0 S.0 67-72-1 Hexachlorocyclopentadlene S.0 S.0 193-39-5 Indenc(1,2,3-cd)pyrene S.0 S.0 78-59-1 Hexachlorocyclopentadlene S.0 S.0 91-20-3 Indenc(1,2,3-cd)pyrene S.0 S.0 92-55 Indenc(1,2,3-cd)pyrene S.0 S.0 92-03 Naphtalene S.0 S.0 92-03 Naphtalene S.0 S.0 92-05-3 Naphtalene S.0 S.0 92-75-5 Naltroso-dimethylamine S.0 S.0 62-75-9 Naltroso-dimethylamine S.0 S.0 62-76-5 Pentachlorophenol S.0 S.0<	117-84-0	Di-n-octyl Phthalate	<5.0	5.0
206-44-0 Floorantene <5.0 5.0 86-73-7 Floorene <5.0	122-66-7	1,2-Diphenylhydrazine	<5.0	5.0
B6-73-7 Fluorene < 5.0 5.0 118-74-1 Hexachlorobenzene < 5.0	117-81-7	BIs(2-ethylhexyl) Phthalate	<5.0	5.0
118-74-1 Hexachlorobenzene <5.0 5.0 87-68-3 Hexachlorobutadiene <5.0	206-44-0	Fluoranthene	<5.0	5.0
B7-68-3 Hexachlorobutadiene <5.0 5.0 77-47-4 Hexachlorocyclopentadiene <5.0	86-73-7	Fluorene	<5.0	5.0
77-47-4 Hexachlorocyclopentallene <5.0	118-74-1	Hexachlorobenzene	<5,0	5.0
67-72-1 Hexachloroethane <5.0	87-68-3	Hexachlorobutadiene	<5.0	5.0
193-39-5 Indeno(1,2,3-cd)pyrene 5.0 78-59-1 Isophorone 5.0 5.0 91-20-3 Naphthalene 5.0 5.0 98-95-3 Ntrobenzene 5.0 5.0 100-02-7 4-Ntrophenol 20 20 88-75-5 2-Nitrophenol 5.0 5.0 62-75-9 N-Nitroso-dimethylamine 5.0 5.0 621-64-7 N-Nitroso-dimethylamine 5.0 5.0 87-86-5 Pentachlorophenol 20 20 88-01-8 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-Trichloropenzena 5.0 5.0	77-47-4	Hexachlorocyclopentadiene	<5.0	5.0
78-59-1 Isophorone <5.0 5.0 91-20-3 Naphthalene <5.0	67-72-1	Hexachloroethane	<5.0	5.0
91-20-3 Naphthalene < 5.0 5.0 98-95-3 Nitrobenzene < 5.0	193-39-5	Indeno(1,2,3-cd)pyrene	<5.0	5.0
98-95-3 Ntrobenzene <5.0 5.0 100-02-7 4-Ntrophenol <20	78-59-1	Isophorone	<5.0	5.0
100-02-7 4-Nitrophenol <20 20 88-75-5 2-Nitrophenol <5.0	91-20-3	Naphthalene	<5.0	5.0
88-75-5 2-Nitrophenol <5.0 5.0 62-75-9 N-Nitroso-dimethylamine <5.0	98-95-3	Nitrobenzene	<5.0	5.0
62-75-9 N-Nitroso-dimethylamine <5.0	100-02-7	4-Nitrophenol	.<20	20 .
86-30-6 N-Nitroso-diphenylamine <5.0 5.0 621-64-7 N-Nitroso-di-n-propylamine <5.0	88-75-5	2-Nitrophenol	<5.0	5.0
621-64-7 N-Nitroso-di-n-propylamine <5.0 5.0 87-86-5 Pentachlorophenol <20	62-75-9	N-Nitroso-dimethylamine	<5.0	5.0
87-86-5 Pentachlorophenol <20 20 85-01-8 Phenanthrene <5.0	86-30-6	N-Nitroso-diphenylamine	<5.0	5.0
85-01-8 Phenanthrene <5.0	621-64-7	N-Nitroso-di-n-propylamine	<5.0	5.0
108-95-2 Phenol <5.0 5.0 129-00-0 Pyrene <5.0	87-86-5	Pentachlorophenol	<20 .	20
129-00-0 Pyrene < 5.0 5.0 120-82-1 1,2,4-Trichlorobenzena < 5.0	85-01-8	Phenanthrene	<5.0	5.0
120-82-1 1,2,4-Trichlorobenzena <5.0 5.0	108-95-2	Phenol	<5.0	5.0
	129-00-0	Pyrene	<5.0	5.0
88-06-2 2,4,6-Trichlorophenoi <5,0 5.0	120-82-1	1,2,4-Trichlorobenzene	<5.0	5.0
	88-06-2	2,4,6-Trichlorophenoi	<5.0	5.0

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Client:	DTE - Fermi-2	Work Order:	1312032	
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	001 Composite	Sampled:	12/3/13 12:55	
Lab Sample ID:	1312032-15	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	
Unit:	ug/L	Prepared:	12/5/13 8:00 By: ALK	
Dilution Factor:	1	Analyzed:	12/11/13 7:08 · By: DWJ	
OC Batch	1313027	Analytical Batch:	3111050	

Semivolatile Organic Compounds by EPA Method 625 (Continued)

AS Number Analyte			Analytical Result		RL	
Surrogates:	% Recovery	Control Limits				
2-Fluorophenol	40	18-74				
Phenol-d6	26	12-47				
Nitrobenzene-d5	66	34-122				
2-Fluoroblphenyf	68	36-136		•		
2,4,6-Tribromophenol	51	19-131				
o-Terphenyl	74	27-1.38				

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Client:	DTE - Fermi-2	Work Order:	1312032
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services
Client Sample ID:	001 Composite	Sampled:	12/3/13 12:55
Lab Sample ID:	1312032-15	Sampled By:	J. Elsey
Matrix:	Waste Water	Received:	12/3/13 17:00

Total Metals by EPA 200 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Aluminum	1.0	0.050	mg/L	. 1	USEPA-200.7	12/09/13 12:16	KLV	1313073
Antimony	<1.0	1.0	ug/L	1	USEPA-200,8	12/09/13 13:34	MSM	1313011
Arsenic	2.3	1.0	ug/L	1	USEPA-200,8	12/09/13 13:34	MSM	1313011
Barium	46	5.0	ug/L	1	USEPA-200,8	12/09/13 13:34	MSM	1313011
Beryllium	<1.0	1.0	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Boron	46	20	ug/L	1	USEPA-200.8	12/10/13 10:20	MSM	1313011
Cadmium	<0.20	0.20	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Chromium	<10	10	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Cobait	<10_	10	uğ/L	1	USEPA-200.7	12/09/13 12:16	KLV	1313073
Copper	7.1	1.0	ug/L	1	U5EPA-200.8	12/09/13 13:34	MSM	1313011
Iron	1.6	0.010	mg/L	1	USEPA-200.7	12/09/13 15:43	CKD	1313073
Lead	2.1	1.0	úg/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Magnesium	20	0.50	mg/L	1	USEPA-200.7	12/09/13 15:43	CKD	1313073
Manganese	0.047	0.010	mg/L	1	USEPA-200.7	12/09/13 12:16	KLV	1313073
Molybdenum	<0.10	0,10	mg/L	1	USEPA-200.7	12/05/13 09:58	KLV	1312991
Nickel	<5.0	5.0	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Selenium	<1.0	1.0	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Silver	<0.50	0.50	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Thallium	<1.0	1.0	ug/L	1	USEPA-200.8	12/09/13 13:34	MSM	1313011
Tin	<0.20	0.20	mg/L	1	USEPA-200.7	12/05/13 09:58	KLV	1312991
Titanlum	<0.10	0.10	mg/L	1	USEPA-200.7	12/05/13 09:58	KLV	1312991
Zinc	18	10	ug/L	1	USEPA-200,8	12/09/13 13:34	MSM	1313011

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	-	West Orders	1010000	
Client:	DTE - Fermi-2	Work Order:	1312032	•
Project:	Permit Renewal - Fermi, 2013	Description:	Laboratory Services	
Client Sample ID:	001 Composite	Sampled:	12/3/13 12:55	
Lab Sample ID:	1312032-15	Sampled By:	J. Elsey	
Matrix:	Waste Water	Received:	12/3/13 17:00	

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	Ву	QC Batch
Hardness as CaCO3	248	2	mg/L	1	SM 2340 C-2011	12/06/13 14:30	Kar	1313099
BOD, (5-Day)	<4.0	4.0	mg/L	1	SM 5210 B-2011	12/04/13 11:31	SKA	1313038
Bromide	<0.50	0.50	- mg/L	1	ASTM D 1246-05	12/11/13 13:00	SLL	1313240
Chemical Oxygen Demand	28	5.0	mg/L	1	SM 5220 D-2011	12/04/13 14:59	SLL	1313025
Color (Apparent)	15.0	5.00	A.C.U.	1	SM 2120 B-2011	12/04/13 14:23	CAC	1313019
Fluoride	0.23	0.10	mg/L	1	SM 4500-F C-2011	12/13/13 10:40	SLL	1313326
Surfactants, MBAS	<0.0250	0.0250	mg/L	1	SM 5540 C-2011	12/04/13 12:15	WAH	1313020
Phosphorus, Total	0.667	0.0100	mg/L	1	SM 4500 P E-2011	12/10/13 10:09	KÄR	1313144
Residue, Dissolved @ 180° C	340	50	mg/L	1	SM 2540 C-2011	12/05/13 13:00	WAH	1313033
Residue, Suspended	59.4	5,0	mg/L	1	SM 2540 D-2011	12/05/13 15:30	WAH	1313036
Sulfate	49	10	mg/L	2	ASTM D516-90 (07)	12/12/13 10:38	LMA	1313298
Sulfide, Total	<0.020	0.020	mg/L	1	SM 4500-SZ D-2011	12/06/13 15:31	WAH	1313149
Sulfite	<1.0	1.0	mg/L	1	SM 4500-503 8-2011	12/04/13 13:50	CAC	1313110
Carbon, Total Organic	5.3	0,50	mg/L	1	SM 5310 C-2011	12/05/13 20:20	KAR	1313095
Nitrogen, Ammonia	0,089	0.050	mg/L	1	SM 4500-NH3 G-2011	12/11/13 11:15	CLB	1313163
Nitrogen, Nitrate+Nitrite	0.87	0.050	mg/L	i	SM 4500-NO3 F-2011	12/04/13 13:19	CAC	1313118
Nitrogen, Organic	0.51	0.50	mg/L	1	EPA-351.2/4500-NH3G	12/12/13 14:35	CLB	1313201
Nitrogen, Total Kjeldahl	0.59	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	12/09/13 11:45	CLB	1313050
Nitrogen, Inorganic	0.96	0.050	mg/L	1	[CALC]	12/11/13 11:15	CĄC	[CALC]

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Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits RL	
2C Batch: 1313086 608 Liquid/Li	,					•	,	
Method Blank					Analy	zed:	12/13/2013	By: ASC
init; ug/L					Analy	tical Batch:	3L13025	
PCB-1016			<0.20			<u>مند</u>	0,20	
PCB-1221			<0.20				0.20	
PCB-1232			<0.20				0.20	
PCB-1242			<0.20				0.20	
PCB-1248			<0.20				0.20	
PCB-1254			<0.20				0.20	
PCB-1260			<0.20				0.20	
Surrogates:								
Decachlorobiphenyl				98	45-134			
Tetrachloro-m-xylene				72	27-126			
Laboratory Control Sample					Analy	zed:	12/13/2013	By: ASC
Unit: ug/L					Anaiy	tical Batch:	3L13025	
PCB-1248		0.600	0.552	92	38-158		0.20	
Surrogates:								
Decachlorobiphenyl				96	45-134			
Tetrachloro-m-xylene				70	27-126			

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	Sample	Spike		Spike	Control		RPD	
Analyte	Conc.	Qty.	Result	% Rec.	Limits	RPD	Limits RL	
C Batch: 1313145 5030B Aqu	eous Purge & Trap/U	JSEPA-624						
lethod Blank	,,,,,,_,,,,,,,,,,,,,,,,,,				Analy	zed:	12/06/2013	By; DLV
Jnit: ug/L					Analy	tical Batch:	3L09003	
crolein			<5.0				5.0	
crylonitrile			<1.0				1.0	
enzene			<1.0				1.0	,
romodichloromethane			<1.0				1.0	
romoform			<1.0				1.0	
romomethane			<1.0			•	1.0	
Carbon Tetrachloride			<1.0				1.0	
hlorobenzene			<1.0				1.0	
hloroethane			<1.0				1.0	
-Chloroethyl Vinyl Ether			<10				10	
hloroform			<1.0				1.0	
hloromethane			<1.0				1.0	
Ibromochloromethane			<1.0				1.0	
,1-Dichloroethane			<1.0				- 1.0	
,2-Dichloroethane			<1.0			,	1.0	
1-Dichloroethene			<1.0				1.0	
,3-Dichloropropene (Total)			<2.0				2,0	
rans-1,2-Dichloroethene			<1.0				1.0	
,2-Dichloropropane			<1.0				1.0	
thylbenzene			<1.0				1.0	
lethylene Chloride			<5.0				5.0	
,1,2,2-Tetrachloroethane			<1.0				1.0	
etrachloroethene			<1.0				1.0	
oluene			<1.0				1.0	
,1,1-Trichloroethane			<1.0				1.0	
,1,2-Trichloroethane			<1.0				1.0	
richloroethene			<1.0				1.0	
inyl Chloride			<1.0				1.0	
Surrogates:	, ,							
Dibromofluoromethane				101	85-118			
1,2-Dichloroethane-d4				99	87-122			
Toluene d8				100	85-113			
4-Bromofluorobenzene				<i>95</i>	82-110			

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	Sample	Spike			Spike	Control		RPD	
Analyte	Conc.	Qty.	Result	•	% Rec.	Umits	RPD	Limits RL	
QC Batch: 1313145 (Continued)	5030B Aqueous	Purge & Traj	o/USEPA-62	4		,			
Laboratory Control Sample						Analy	zed:	12/06/2013	By: DLV
Unit: ug/L						Analy	tical Batch:	3L09003	
Acrolein		40.0	44.5		111	48-146		5.0	
Acrylonitrile		40.0	34.4	•	86	73-129	+	1.0	
Benzene		40.0	39.7		99	84-119	+	. 1.0	
Bromodichloromethane		40.0	37,6		94	82-124	i	1.0	

Bromodichloromethane	40.0	37.6	94	82-124	1	1.0	
Bromoform	40.0	34.8	87	65-123		1.0	
Bromomethane	40.0	45.0	113	55-142		1.0	
Carbon Tetrachloride	40.0	38,2	95	79-127		1.0	
Chlorobenzene	40.0	38.0	95	84-118		1.0	
Chloroethane	40.0	49.2	123	76-124		1.0	
Chloroform	40.0	39.1	98	82-119		1.0	
Chloromethane	40.0	39.5	99	73-125		1.0	
Dibromochloromethane	40.0	34.9	87	74-121		1.0	
1,1-Dichloroethane	40.0	39.2	98	80-118	÷-	1.0	
1,2-Dichloroethane	40.0	37.8	95	81-122		1,0	
1,1-Dichloroethene	40.0	42,6	107	77-123		1.0	
1,3-Dichloropropene (Total)	80.0	65.5	82	81-116		2.0	
trans-1,2-Dichloroethene	40.0	39.7	99	76-126		1.0	
1,2-Dichloropropane	40.0	40.5	101	82-122		1.0	
Ethylbenzene	40.0	38.2	· 96	87-119		1.0	
Methylene Chloride	40.0	38,6	97	75-129	•	5.0	
1,1,2,2-Tetrachloroethane	40.0	37,5	94	70-137		1.0	
Tetrachloroethene	40.0	38.4	96	81-117		1.0	
Toluene	40.0	38.5	96	85-118	·	1.0	
1,1,1-Trichloroethane	40.0	39.8	99	81-122		1.0	
1,1,2-Trichloroethane	40.0	37.9	95	83-121		1.0	
Trichloroethene	40.0	39.9	100	82-119		1.0	
Vinyl Chloride	40.0	42.1	105	77-123		1.0	
Surrogates:							
Dibromofluoromethane			103	85-118			
1,2-Dichloroethane-d4			97	87-122			
Toluene-d8			101	85-113			
4-Biomofluorobenzene			97	82-110			

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Analyte	Sample Conc.	Spike Qty,	Result	Spike % Rec.	Control Limits	RPD	RPD Limits RL	
C Batch: 1313027 625 Liquid/	Liquid Extraction/US	EPA-625	,	•				
Method Blank				·····	Analy	zed:	12/11/2013	By: DWJ
Jnit: ug/L					Analy	tical Batch:	3L11050	
Acenaphthene			<5.0				5.0	
Acenaphthylene			<5.0				5.0	
inthracene			<5.0			٠	5.0	
Benzidine			<50				50	
Benzo(a)anthracene			<5.0				5,0	
Benzo(a)pyrene			<5.0				5.0	
Benzo(b)fluoranthene			<5.0				5,0	••
Benzo(k)fluoranthene			<5.0				5.0	
Benzo(g,h,l)perylene			<5,0				5.0	
-Bromophenyl Phenyl Ether			<5.0				5.0	
Butyl Benzyl Phthalate			<5.0				5.0	
-Chloro-3-methylphenol			<5.0				5.0	
Bis(2-chloroethoxy)methane		·	<5.0				5.0	
lis(2-chloroethyi) Ether			<5.0				5.0	
is(2-chloroisopropyi) Ether			<5,0				5.0	
-Chloronaphthalene			<5.0	•			5.0	
2-Chlorophenol			<5.0				5.0	
-Chlorophenyl Phenyl Ether			<5.0				5.0	
Chrysene			<5.0				5.0	
Dibenz(a, h)anthracene			<5.0				5.0	
Di-n-butyl Phthalate			<5.0			•••	5.0	
,2-Dichlorobenzene			<5.0				5.0	
,3-Dichlorobenzene			<5,0				5,0	
,4-Dichlorobenzene			<5.0				5.0	
,3'-Dichlorobenzidine			<20				20	
2,4-Dichlorophenol			<5.0				5.0	
Diethyl Phthalate			<5.0				5.0	
2,4-Dimethylphenol	•		<5.0				5.0	
Dimethyl Phthalate			<5.0				5.0	
i,6-Dinitro-2-methylphenol			<20				20	
,4-Dinitrophenol			<20				20	
,4-Dinitrotoluene			<5.0				5.0	
2,6-Dinitrotoluene			<5.0				5.0	
Di-n-octyl Phthalate			<5.0				5,0	
L,2-Diphenylhydrazine			<5.0				5.0	
3ls(2-ethylhexyl) Phthalate			<5.0				5.0	

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	Semivolatile	organic C	ompounds o	Y CPA Metho	u 025 (COI	ninueu)		
Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD. Limits RL	
C Batch: 1313027 (Continued	I) 625 Liquid/Liquid	Extraction/	JSEPA-625		,			
Method Blank (Continued)		· · · · · · · · · · · · ·			Analy	zed:	12/11/2013	By: DWJ
Jnit: ug/L					Analy	ical Batch:	3L11050	,
luoranthene	•		<5.0	÷			5.0	
luorene			<5.0				5.0	
lexachlorobenzene			<5.0				5.0	•
lexachlorobutadiene			<5.0				5.0	
lexachlorocyclopentadiene			<5.0				5,0	
lexachloroethane			<5.0				5.0	
ndena(1,2,3-cd)pyrene			<5.0				5.0	
sophorone			<5.0				5.0	
laphthalene			<5.0				5.0	
Vitrobenzene			<5.0				5.0	
-Nitrophenol			<20				20	
-Nitrophenol			<5.0				5.0	
Nitroso-dimethylamine			<5,0				5,0	
I-Nitroso-diphenylamine			<5.0			ني ه	5.0	
I-Nitroso-di-n-propylamine			<5.0				5.0	
entachlorophenol			<20				20	
henanthrene			<5.0				5,0	
henol			<5,0				5.0	
yrene			<5.0				5.0	
1,2,4-Trichlorobenzene			<5.0				5.0	
2,4,6-Trichlorophenol			<5.0				5.0	
Surrogates:								
2-Fluorophenol				49	18-74			
Phenol-d6				31	12-47			
Nitrobenzena-d5				87	34-122			
2-Fluorobiphenyi				94	36-136			
2,4,6-Tribromophenol				69	19-131			
o-Terphenyl				98	27-138			
Laboratory Control Sample					Analy	zed:	12/11/2013	By: DWJ
Unit: ug/L					Analy	tical Batch:	3L11050	
Acenaphthene		100	99.2	99	47-145		5.0	

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	Semivolatile		.	-	-			
Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits RL	
C Batch: 1313027 (Continue	······································							
aboratory Control Sample (C	ontinued)				Analy	zed:	12/11/2013	By: DWJ
nit: ug/L	-				Analy	tical Batch:	31_11050	
cenaphthylene		100	102	102	33-145		5.0	
nthracene		100	99.3	9 9	27-133	*-	5.0	
enzldine		200	171	86	28-120		50	
enzo(a)anthracene		100	96.8	97	33-143		5.0	
enzo(a)pyrene		100	96.8	97	17-163		5.0	
enzo(b)fluoranthene		100	96.6	97	24-159		5.0	
enzo(k)fluoranthene		100	104	104	11-162	~~	5.0	
enzo(g,h,i)perylene		100	96.5	96	1-219		5.0	
Bromophenyl Phenyl Ether		100	83.0	83	53-127	ż	5.0	
ityl Benzyl Phthalate		100	98.3	98	1-152		5.0	
Chloro-3-methylphenol		100	93.9	94	22-147		5.0	
s(2-chloroethoxy)methane		100	100	100	33-184	•-	5.0	
s(2-chloroethyl) Ether		100	105	105	12-158	4	5,0	
s(2-chlorolsopropyl) Elher		100	104	104	36-166		5.0	•
Chloronaphthalene		100	101	101	60-118		5.0	
Chlorophenol		100	93.2	93	23-134		5,0	
Chiorophenyl Phenyl Ether		100	93.5	94	25-158		5.0	
rysene		100	102	102	17-168		5.0	
benz(a,h)anthracene		100	94.1	94	1-227		5.0	
-n-butyl Phthalate		100	94.5	94	- 1-118		5.0	
2-Dichlorobenzene		100	97.5	98	32-129		5.0	
3-Dichlorobenzene		100	98,3	.98	1-172	**	5.0	
4-Dichlorobenzene		100	100	100	20-124		5,0	
3 '-Dichlorobenzidine		200	214	107	1-262		20	
4-Dichlorophenol		100	97.4	97	39-135		5,0	
ethyl Phthalate		100	97.6	98	1-114		5,0	
4-Dimethylphenol		100	91.0	91	32-119		5,0	
methyl Phthalate		100	96.5	96	1-112	••	5.0	
6-Dinitro-2-methylphenol		100	100	100	1-181		20	
4-Dinitrophenol		100	76.0	76	1-191		20	
4-Dinitrotoluene		100	93,2	93	39-139		5.0	
6-Dinitrotoluene		100	90.8	91	50-158		5.0	
I-n-octyl Phthalate		100	95.2	95	4-146		5.0	
2-Diphenylhydrazine		100	96.5	96	62-128		5.0	
s(2-ethylhexyl) Phthalate		100	99.8	100	8-158		5.0	
uoranthene		100	99.8	100	26-137		5.0	

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N-Nitroso-di-n-propylamine Pentachlorophenol

1,2,4-Trichlorobenzene

2,4,6-Trichlorophenol Surrogates:

> 2-Fluorophenol Phenol-d6

Nitrobenzene d5

2-Fluorobiphenyl 2,4,6-Tribromophenol

o-Terphenyl

Phenanthrene

Phenol

Pyrene

QUALITY CONTROL REPORT

Semivolatile Organic Compounds by EPA Method 625 (Continued)									
	Sample Sp Conc. Qt	lke y. Re	sult	Spike % Rec.	Control Limits	RPD	RPD Limits RL		
QC Batch: 1313027 (Continued) 625	iquid/Liquid Extract	tion/USEP	A-625						
Laboratory Control Sample (Continue Unit: ug/L	d)				Analy Analy	zed: tical Batch;	12/11/2013 3L11050	By: DWJ	
Fluorene	10	io. 99		100	59-121	'	5.0		
Hexachlorobenzene	10	0 99	.0	99	1-152		5.0		
Hexachlorobutadiene	10	0 10	4	104	24-116		5,0		
Hexachlorocyclopentadlene	10	0 9 2	.3	92	21-138		5,0		
Hexachloroethane	10	0 . 10	2	102	40-113		5.0		
Indeno(1,2,3-cd)pyrene	10	92	.4	92	21-196	`	5.0		
Isophorone	10	0 9 9	.7	100	56-129		5.0		
Naphthalene	10	00 10	3	103	21-133		5.0		
Nitrobenzene	10	00 9 9	.2	99	35-180		5.0		
4-Nitrophenol	10	10 29	.1	29	1-132		20		
2-Nitrophenol	10	00 9 9	.7	100	29-182		5.0		
N-Nitroso-dimethylamine	-10	0 59	.7	60	22-87		5,0		
N-Nitroso-diphenylamine	10	0 82	2,2	82	45-110		5.0		

101

81

98

42

96

95

90

57

38

89

<u>92</u>

82

93

1-230

14-176

54-120

5-112

52-115

44-142

37-144

18-74

12-47

34-122

36-136

19-131

27-138

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••

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5.0

20

5.0

5.0

5.0

5.0

5.0

100

100

100

100

100

100

100

101

80.9

97.5

41,9

95.9

95,1

89.9

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QC Type Cor	mple Spike nc. Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL		:
Analyte: Aluminum/USEPA-200.7				•					
QC Batch: 1313073 (200.2 Digestion)	-					Analyzed:	12/09/2013	By: KLV	
tethod Blank		<0.050	nig/L				0.0)50	
aboratory Control Sample	2.00	1.87	mg/L	93	85-115		0.0)50	
Analyte: Antimony/USEPA-200.8									
C Batch: 1313011 (200.2 Digestion)						Analyzed:	12/09/2013	By: MSM	
tethod Blank		<1.0	ug/L	,			1.0)	
aboratory Control Sample	50,0	52.7	ug/L	105	85-115		. 1.0)	
Analyte: Arsenic/USEPA-200.8							_		
2C Batch: 1313011 (200.2 Digestion)						Analyzed:	12/09/2013	By: MSM	
ethod Blank		<1.0	ug/L	•			1,0)	
aboratory Control Sample	50.0	51.1	ug/L	102	85-115		1.0)	
Analyte: Barium/USEPA-200.8							•		
2C Batch: 1313011 (200.2 Digestion)						Analyzed:	12/09/2013	By: MSM	
lethod Blank		<5.0	ug/L				5.0	0	
aboratory Control Sample	50,0	53.5	ug/L	107	85-115		5.0	D	
and a sample									
Analyte: Beryllium/USEPA-200.8						Analyzed:	12/09/2013	By: MSM	
Analyte: Beryllium/USEPA-200.8 DC Batch: 1313011 (200.2 Digestion)		<1.0	ug/L			Analyzed:	12/09/2013	· ·	
Analyte: Beryllium/USEPA-200.8 CC Batch: 1313011 (200.2 Digestion) lethod Blank	50.0	<1.0 47.4	ug/L ug/L	95	85-115	Analyzed:		0	
Analyte: Beryllium/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) tethod Blank aboratory Control Sample	50.0			95	85-115	Analyzed:	1.0	0	
Analyte: Beryllium/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) lethod Blank aboratory Control Sample Analyte: Boron/USEPA-200.8	50.0			95	85-115	Analyzed: Analyzed:	1.0	0	
Analyte: Beryllium/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) lethod Blank aboratory Control Sample Analyte: Boron/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion)	50.0			95	85-115		1.0 1.0 12/10/2013 20	By: MSM	
Analyte: Beryllium/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) tethod Blank aboratory Control Sample Analyte: Boron/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) tethod Blank	50.0	47.4	ug/l <u>.</u>	95	85-115		1. 1. 1. 12/10/2013	By: MSM	
Analyte: Beryllium/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) aethod Blank aboratory Control Sample Analyte: Boron/USEPA-200.8 4C Batch: 1313011 (200.2 Digestion) bethod Blank aboratory Control Sample		47.4 <20	ug/L				1.0 1.0 12/10/2013 20	By: MSM	
Analyte: Beryllium/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) tethod Blank aboratory Control Sample Analyte: Boron/USEPA-200.8 2C Batch: 1313011 (200.2 Digestion) tethod Blank aboratory Control Sample		47.4 <20	ug/L				1.0 1.0 12/10/2013 20	By: MSM	

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	Total N	letais by EPA 20	0 Series Me	thods (Con	tinued)		
	Sample Spike Conc. Qty.	Result	Unit	Spike % Rec.	Control Limits RPE	RPD Limits RL	· ·
Analyte: Cadmium/USEPA-200.	8 (Continued)						
QC Batch: 1313011 (Continued) (200.2 Dig	estion)				Analyzed	12/09/2013	By: MSM
Laboratory Control Sample	50.0	51.2	ug/L	102	85-115	0.	20
Analyte: Chromium/USEPA-200).8						
QC Batch: 1313011 (200.2 Digestion)		-			Analyzed	12/09/2013	By: MSM
Yethod Blank		<10	ug/L		•	10)
Laboratory Control Sample	50.0	43.8	ug/L	88	85-115	10	•
Analyte: Cobalt/USEPA-200.7							
QC Batch: 1313073 (200.2 Digestion)		-			Analyzed	12/09/2013	By: KLV
Method Blank	ć ,	<10	ug/L			10	
aboratory Control Sample	400	379	ug/L	95	85-115	10	I
Analyte: Copper/USEPA-200.8							
QC Batch: 1313011 (200.2 Digestion)					Analyzed	12/09/2013	By: MSM
Method Blank		<1.0	ug/L			1.	0
Laboratory Control Sample	50.0	47.5	ug/L	95	85-115	1.	0
Analyte: Iron/USEPA-200.7							
QC Batch: 1313073 (200.2 Digestion)		· · · · · · · · · · · · · · · · · · ·			Analyzed	12/09/2013	By: CKD
Method Blank		<0.010	mg/L			0.	010
Laboratory Control Sample	0.400	0.391	mg/L	98	85-115	0.	010
Analyte: Lead/USEPA-200.8							
QC Batch: 1313011 (200.2 Digestion)					Analyzed	12/09/2013	By: MSM
Method Blank		<1.0	ug/L			1.	0
Laboratory Control Sample	50.0	50.3	ug/L	101	85-115	1.	0
Analyte: Magnesium/USEPA-2	00.7						
QC Batch: 1313073 (200.2 Digestion)					Analyzed	; 12/09/2013	By: CKD
Method Blank		<0.50 .	mg/L	,		0.	50

Continued on next page

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		Total Met	als by EPA 20	0 Series Me	thods (Con	tinued)			
	iample Ionc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits R	
Analyte: Magnesium/USEPA-20	0.7 (Conl	inued)							
QC Batch: 1313073 (Continued) (200.2 Dige	stion)						Analyzed:	12/09/2013	By: CKD
Laboratory Control Sample		20.0	19.7	mg/L	98	85-115		0.	50
Analyte: Manganese/USEPA-20	0.7					-			12
QC Batch: 1313073 (200,2 Digestion)							Analyzed:	12/09/2013	By: KLV
Method Blank			<0.010	mg/L				0.	010
Laboratory Control Sample		0,400	0,378	mg/L	94	85-115		0.	010
Analyte: Molybdenum/USEPA-2	00.7							-	
QC Batch: 1312991 (200.2 Digestion)							Analyzed:	12/05/2013	By: KLV
Method Blank	,		<0.10	mg/L				0.	10
Laboratory Control Sample		0.400	0.422	mg/L	106	85-115		0,	10 .
Analyte: Nickel/USEPA-200.8							<u> </u>		
QC Batch: 1313011 (200.2 Digestion)							Analyzed:	12/09/2013	By: MSM
Method Blank			<5.0	ug/L				5	0
Laboratory Control Sample		50.0	47,0	ug/L	94	85-115		5	0
Analyte: Selenium/USEPA-200.8	3								
QC Batch: 1313011 (200.2 Digestion)							Analyzed:	12/09/2013	By: MSM
Method Blank			<1.0	ug/L				1	0
Laboratory Control Sample		50.0	48.9	ug/L	98	85-115		1	0
Analyte: Silver/USEPA-200.8		•							
QC Batch: 1313011 (200.2 Digestion)							Analyzed:	12/09/2013	By: MSM
Method Blank			<0.50	ug/L					50
Laboratory Control Sample		50,0	51.9	ug/L	104	85-115		0	50
Analyte: Thallium/USEPA-200.8									
QC Batch: 1313011 (200.2 Digestion)							Analyzed:	12/09/2013	By: MSM
Method Blank			<1.0	ug/L				1	.0

Continued on next page

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		Sample	Spike		7	Spike	Control		RPD		
QC Type		Conc.	Qty.	Result	Unit	% Rec.	Limits	RPD	Umits	RL.	
Analyte:	Thallium/USEPA-20	0.8 (Continu	ied)							,	
QC Batch: 1313011 (Continued) (200.2 Digestion)		Digestion)						Analyzed:	12/09/2013	By: MSM	
Laboratory Control Sample			50.0	49.8	ug/L	100	85-115		:	1.0	
Analyte:	Tin/USEPA-200.7										
QC Batch: 1312991 (200.2 Digestion)							Analyzed:	12/05/2013	By: KLV		
Method Blank				<0.20	mg/L				i	0.20	
Laboratory Control Sample			2.00	2.12	, mg/L	106	85-115		0.20		
Analyte:	Titanium/USEPA-20	0.7							-		
QC Batch: 1312991 (200.2 Digestion)								Analyzed:	12/05/2013	By: KLV	
Method Blank				<0.10	mg/L	•				0.10	
Laboratory Control Sample			0.400	0.422	mg/L	106	85-115			0.10	
Analyte:	Zinc/USEPA-200.8										
QC Batch: 131	3011 (200.2 Digestion)							Analyzed:	12/09/2013	By: MSM	
Method Blank				<10	ug/L		N			10	
Laboratory Control Sample			50.0	54.0	ug/L	108	85-115			10	

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QUALITY CONTROL REPORT

Total Metals by EPA 1600 Series Methods

QC Туре	Sample Conc.	Spike Qty	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL	
Analyte: Mercury/US	SEPA-1631E	. •						•		
QC Batch: 1313075 (1631E Dig	estion)		,				Analyzed:	12/05/2013	By: MSM	
Method Blank		<0,500	ng/L			0.500				
Method Blank			<0.500	ing/L			0.500			
Method Blank			<0.500	ng/L					0.500	
Laboratory Control Sample		4.00	4.103	ng/L	103	77-123		0.500		
1312032-02 [Outfall 001 LLH	9]									
Matrix Spike	7.843	4.00	11.74	ng/L	98	71-125			2.50	
Matrix Spike Duplicate	7.843	4.00	11.43	ng/L	90	71-125	3	24	2.50	
QC Batch: 1313536 (1631E Digestion)							Analyzed:	12/19/2013	By: MSM	
Method Blank			<0.500	ng/L					0.500	
Method Blank			<0.500	ng/L				0.500		
Method Blank			<0.500	ng/L				0,500		
Laboratory Control Sample		4.00	4,065	ng/L	102	77-123		0.500		

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QC Type			Sample Conc.	Spike Qty,	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Umits	RL	•
	•										-	:
Analyte:	BOD, (5-D	ay)/SM 52	LO B-2011							•.		<u>.</u>
QC Batch: 1313	3038 (General I	norganic Pre	p)						Analyzed:	12/04/2013		By: SKA
Method Blank					<2.0	mg/L					2.0	•
Laboratory Contro	ol Sample			198	189	mg/L	96	85-115			2.0	
Analyte:	Bromide/A	STM D 124	6-05									
QC Batch: 1313	3240 (Method S	pecific Prepa	ration)						Analyzed:	12/11/2013		By: SLL
Method Blank					<0.50	mg/L		1			0.50	
Laboratory Contr	oi Sample			5.00	5.20	, mg/L	104	90-110	•		0.50	
1312032-14	[Intake Compos	site]										
Matrix Spike			0.304	2.50	2.83	mg/L	101	80-120			0,50	
Duplicate			0,304		0.295	mg/L			3	20	0.50	
Analyte:	Carbon, To	otal Organ	ic/SM 53	10 C-2011		•						
QC Batch: 131	3095 (Method S	Specific Prepa	aration)						Analyzed:	12/05/2013		By: KAR
Method Blank					<0.50	mg/L					0.50	
Laboratory Contr	rol Sample			2.00	2,24	mg/L	112	84-118			0,50	
1312032-14	[Intake Compo	site]										
Matrix Spike			3.58	2.00	5.71	mg/L	107	75-124			0.50	
Matrix Spike Dup	olicate		3.58	2.00	5.68	mg/L	105	75-124	0.5	20	0.50	
Analyte:	Chemical	Oxygen D	emand/S	M 5220 D-20	11							
QC Batch: 131	3025 (5220 D 0	COD Digestio	n)						Analyzed:	12/04/2013		By: SLL
Method Blank					<5.0	mg/L					5.0	
Laboratory Conb	rol Sample			60,0	60.6	mg/L	101	95-105			5,0	
Analyte:	Color (Ap)	parent)/SN	1 2120 B-	2011								
_	3019 (Method 9								Analyzed:	12/04/2013		By: CAC
Method Blank		· · ·			<5.00	A.C.U.			2		5.00	
· ·······				25.0	25.0	A.C.U.	100	80-120			5.00	
Laboratory Cont	roi Sample											
Laboratory Cont 1312032-14	roi Sampie [Intake Compo	sitel						•				

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1	Physical/	Chemical P	arameters by I	ЕРА/АРНА	/ASTM Met	thods (Con	tinued)	
QC Туре	Sample Conc.	Spike Qty,	Result	Unit	Spike % Rec,	Control Limits	RPD	RPD Limits I	<u>ي</u>
Analyte: Cyanide, Availabl	e/USEPA OI/	-1677							<u></u>
QC Batch: 1313173 (Method Specific Pr	reparation)					An	alyzed:	12/09/2013	By: LMA
Method Blank			<2.0	ug/L				:	2.0
Laboratory Control Sample		20,0	21.5	ug/L	108	82-132			2.0
1312032-10 [Intake Grab Day 2]									
Matrix Spike	<2.0	20.0	20,7	ug/L	103	82-130		:	2.0
Matrix Spike Duplicate	<2.0	20.0	21.3	ug/L	106	82-130	3	11	2.0
Analyte: Fluoride/SM 4500-	F C-2011	-	• •						
QC Batch: 1313326 (Method Specific Pr	reparation)					An	alyzed:	12/13/2013	By; SLL
Method Blank			<0.10	mg/L				(0,10
Laboratory Control Sample		2,00	1.98	mg/L	99	90-110			5.10
Analyte: Hardness as CaCo	03/ SM 2340	C-2011							
QC Batch: 1313099 (Method Specific Pr	reparation)					An	alyzed:	12/06/2013	By: KAR
Method Blank			<2	mg/L				:	2
Laboratory Control Sample		86,3	87	mg/L	101	92-110		:	2
Laboratory Control Sample		200	202	mg/L	101	92-110		1	2
1312032-14 [Intake Composite]									
Matrix Spike	147	400	545	mg/L	100	86-113			4
Duplicate	147		147	mg/L			0	20	2
Analyte: HEM; Oil & Greas	e/USEPA-16	54A							
QC Batch: 1313184 (1664A Extraction)		•				An	alyzed:	12/10/2013	By: WAH
Method Blank			<5.00	mg/L					5.00
Laboratory Control Sample		40.0	37.5	mg/L	94	78-114			5.00
1312032-03 [Outfal) 001 Grab Day 2]									
Duplicate	<5.00		<5.00	mg/L				18	5.00
Analyte: Nitrogen, Ammor	1a/SM 4500	NH3 G-2011					<u>.</u>		
QC Batch: 1313163 (4500-NH3 B Amm	onia Distillatio	n)				Ar	nalyzed:	12/11/2013	By: CLB
Method Blank			<0.050	mg/L					0.050

Continued on next page

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QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits F	L
Analyte: Nitrogen, Ai	mmonia/SM 4500-	NH3 G-2011	(Continued)		1			. ,	
QC Batch: 1313163 (Continued)	(4500-NH3 B Ammor	ila Distillation)					Analyzed:	12/11/2013	By: CLB
Laboratory Control Sample		1.00	0.963	mg/L	96	90-110		Ċ	.050
Analyte: Nitrogen, N	itrate+Nitrite/SM	4500-NO3 F	2011						
QC Batch: 1313118 (General Inc	organic Prep)						Analyzed:	12/04/2013 '	By: CAC
Method Blank	-		<0.050	mg/L				c	.050
Laboratory Control Sample		0.500	0.524	mg/L	105	90-110		C	.050
Analyte: Nitrogen, To	otal Kjeldahl/USE	PA-351.2 Rev	. 2.0						
QC Batch: 1313050 (351.2 TKN	Digestion)						Analyzed:	12/09/2013	By: CLB
Method Blank			<0.50	mg/L				(0,50
Laboratory Control Sample		2.00	2.09	mg/L	104	90-110		().50
1312032-15 [001 Composite]							•		
Matrix Spike	0.594	2.00	2.87	mg/L	114	. 90-110		(0.50
Matrix Spike Duplicate	0.594	2.00	2.80	mg/L	110	90-110	3	20	0.50
Analyte: Phenolics, 1	rotal/USEPA-420.4	-							
QC Batch: 1313065 (Method Sp	eclfic Preparation)						Analyzed:	12/09/2013	By: LMA
Method Blank			<0.0500	mg/L				-	0.0500
Laboratory Control Sample		0.250	0.264	mg/L	106	90-110		:	0.0500
Analyte: Phosphorus	s, Total/SM 4500-F	P E-2011							
QC Batch: 1313144 (4500-P B F	hosphorus Digestion)					Analyzed:	12/10/2013	By: KAR
Method Blank			<0.0100	mg/L					0.0100
Laboratory Control Sample		0.800	0.784	mg/L	98	90-110			0.0100
Analyte: Residue, Di	issolved @ 180° (C/SM 2540 C-	2011						
QC Batch: 1313033 (General In	organic Prep)						Analyzed:	12/05/2013	By: WAH
Method Blank			<50	ing/L					50
Laboratory Control Sample	×	200	200	mg/L	99	85-115	;		50

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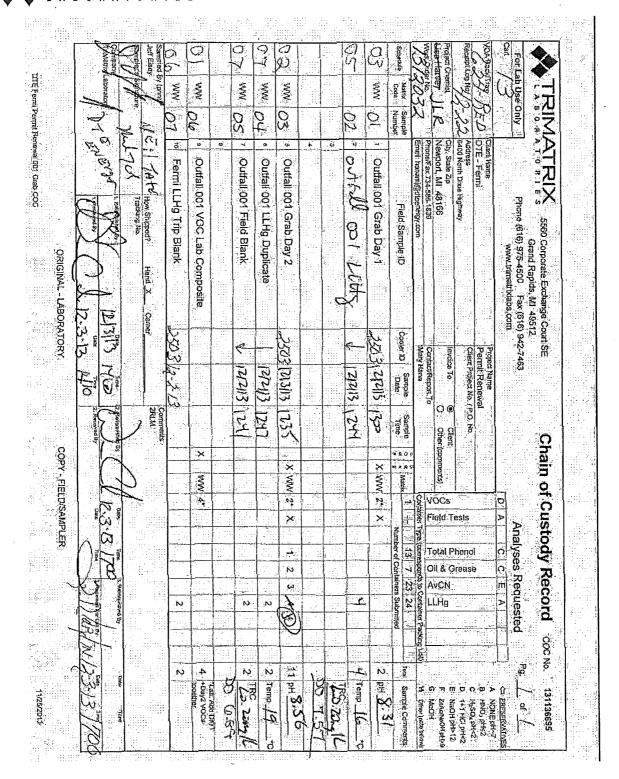
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QC Туре		Sample Conc.	Spike Qty,	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits R	L
Analyte:	Residue, Suspend	led/SM 2540	D-2011							
QC Batch: 1313	036 (General Inorganic	Prep)						Analyzed:	12/05/2013	By: WAH
Method Blank				<3,3	mg/L		`		3	.3
Laboratory Contro	l Sample		200	190	mg/L	95	88-104		2	4.8
Analyte:	Sulfate/ASTM D51	6-90 (07)			-					
QC Batch: 1313	298 (General Inorganic	Prep)						Analyzed:	12/12/2013	By: LMA
Method Blank				<5,0	mg/L				5	.0
Laboratory Contro	l Sample		20.0	21.7	mg/L	108	88-112		5	.0
Analyte:	Sulfide, Total/SM	4500-S2 D-20	011							
QC Batch: 1313	149 (Method Specific Pr	reparation)						Analyzed:	12/06/2013	By: WAH
Method Blank				<0.020	mg/L				0	.020
Laboratory Contro	l Sample		0.336	0.345	mg/L	103	80-120		0	.020
Analyte:	Sulfite/SM 4500-SC	O3-B-2011								
QC Batch: 1313	1110 (Method Specific Pi	reparation)						Analyzed:	12/04/2013	By: CAC
Method Blank				<1.0	mg/L				1	.0
Laboratory Contro	ol Sample		50.0	46.0	mg/L	92	80-120		1	.0
1312032-15 [001 Composite]				,					
Matrix Spike		<1.0	50,0	41.0	mg/L	82	76-104			.0
Duplicate		<1.0		<1.0	mg/L				20 1	.0
Analyte:	Surfactants, MBA	S/SM 5540 C	-2011							
QC Batch: 1313	020 (Method Specific Pi	reparation)						Analyzed:	12/04/2013	By: WAH
Method Blank				<0.0250	mg/L				0	,0250
Laboratory Contro	ol Sample		0.125	0.120	mg/L	96	80-120		0	,0250
1312032-15 [001 Composite]									
Duplicate		<0.0250		<0,0250	mg/L				20 0	.0250

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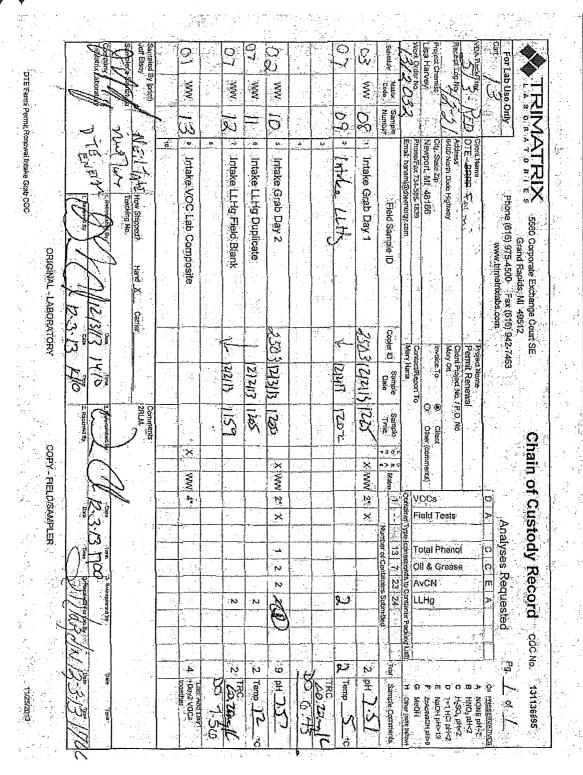


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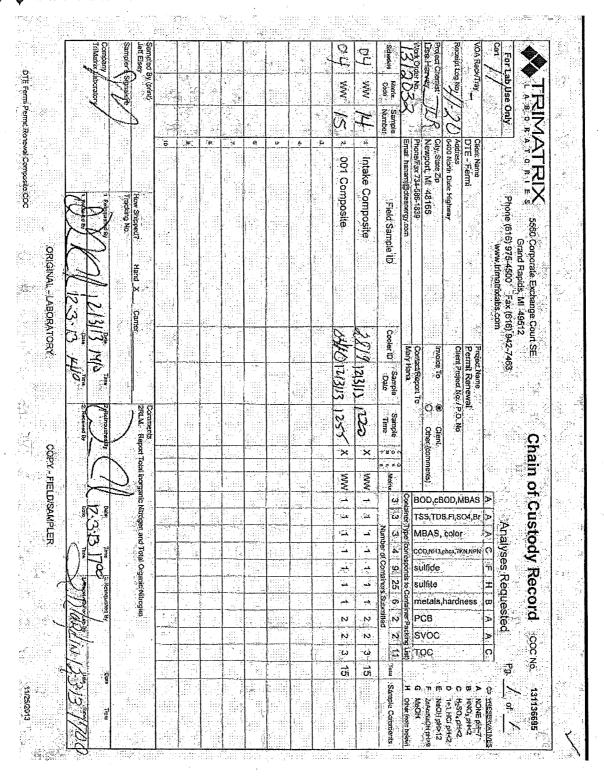
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2	U Box	5 Trermomater Ut	sed 🔲 . Digital Thermom	eter (#54) 🔲 See Additional Canlat
<u></u>	[] O Other -	<u>1</u> , 1	Ciher (#)
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RIMATRIX B 0 R A T 0 R I E S **SAMPLE RECEIVING / LOG-IN CHECKLIST** ATRIX 7 200 10 ទុកាន់ R Gun (#202) D Sou Additional Coole 3-3-15 Box mater Used 🔲 Oldf(al Thermometer (#54) Q Information Pornt D Other (# Time ovjer d Tiga Time ooler # uslody Seals dy Seals dy Seals: Z None Present / Intert Noné CI None D None Present / Intacl , Present / Intact D. Present / Intact D Present / Nos Intact D Present / Not Intact O Present / Not Intact. Prosent / Not Intact oolant Location: Isnt Location: oolani Lucation int Location Dispersed / Top / Middle / Soltom Dispersed / Top / Middle / Bollom Dispersed / Top / Middle / Bottom Disporsed / Top / Middle / Bottom Coolany Temperature Takan Via anoTemperature Takon Via: oolant/Teroperature Taken Vla: ant/Temperature Takeo Via: 1 Losse Ke JAvg 2-3 containers D Loose lost Avg 24 containers C Lozia ka / Avg 2-3 contaners D Lossa he / Avg 2-3 containers 📮 Eaggad ke 7 Avg 2-3 conlamb a Bagged ics / Avg 2-3 containers D Bagged Ice 7 Avg 2-3 containers 🔲 Hegged iss / Avg 2-3 containsis D Blue ke / Avg 2-3 conteiners C PAN ICO / Avg 2.3 costanen D Blis ics / Avg 2-3 tenteiners D Blekel Ang 2.3 containes Nore / Avg 2,3 cortainers: D None / Avg 2-3 comaters I Note / Avg 2-3 containing 🖸 Nona / Avg 2-3 containars llemate Temperature Taken Vist nala Temperature Taken Vla nato Temperaturo Taken Via: lietnoto Tomporature Takon Via: Temperature Blank (TB) Temperalure Blank (TB) 5 Temperature Blank (TB) C. Temperatura Blank (TB) D 1 Container D 1 Container 🗇 1 Container C 1 Container Recorded 'C Correction' Factor 'C Correction Factor *C Recorded "C Correction Actual"C Recorded *Q Correction Recorded 'C Actual C Actual 1 Actual 'O Temp Hank: Ten p Bizak Temp Bark Nuthe Ä Average Averaĝa 'd Average *C Average *(L Cocler ID on COC? C Cooler 10 on COC? Cocler ID on COC? Croler ID on COC? VOC Top Blank received? O VOC Trip Elank rocei VOC Trip Blank, received? - VOC Trip Blank received? If any shaded areas checked, complete Sample Receiving Non-Conformance and/or inventory Form Paperwork Received Check Sample Preservation NA Yas Yes Chain of Custody record(s)7. If No. Instated By Average sample temperature x6° C? Ø Received (cr Lab Signed/Date/Time? O Was thermal procervation required? D D D D ø C Shipping documant? If "No", Project Chemist Approval Intrate m e Other Ο If 'Yes' Completed Non Con Cooler - Cont Inventory Form? COC Information Completed Sample Preservation Ventication Form? Ē TriMelinx COC 113 Samples chemically prosorved correctly? D COC ID Numbers: V "No", added orange tag? O Received pre-preserved VOC spils? D MeOH D Na SO Check COC for Accuracy Check for Short Hold-Time Prep/Analyses 🖸 Bacierological Yes Ø C Air Bags AFTER HOURS ONLY: a Sampla ID matches COC? C EnCores / Methanol Pre-Preserved COPIES OF COC TO LAB AREA(S) Sample Date and Time matches COC ø 🖵 Formaldenyde/Aldenyde 🤇 NONE RECEIVED 3 Ch Green lagged containers . la Container type completed on COC? RECEIVED, COCA TO LAB(S) All container types indicated are received es Yelsw/White-tagged 1L amounts (SV Prep-Lab) Sample Condition Summary Notes Yes NIA No D Broken containers/lids? 2 Missing of incomptete labels? 🗹 Wegibla information on labels? Low volume received? Trip Blank received Trip Blank not Lated on COC - Trappropriate or non-TriMatrix containers received? Ocoset Received (Date/Time) | Paceryork Desvered (Date/Time) | \$1 Hour Goal Mat? VOC vials / TOX containars have headspace? D 3-19 =Yes / No D Extra sample locations / containers not listed o 0 Log In Forms - Receiving Log-In_Checkist revision: 3.4

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Log in Forms als - Sample_Preserve_Verification

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Comments Coo to # Container Type Tag Cotor Prosensative Expected pH Coo Line # FOOC Une #2	Lt. Blue NaOH	Blue H2504 <2	Dale1 1§ Bipiwn H ₃ SO4 <2	• • • • • • • • • • • • • • • • • • •	DO NOTAL 3 Green None	Red HNO1	15 Red Stripe HNO ₂	NER TYPES	pH. Add up to. exceed 2x they added at contain table balow for used). Add ora sample contain- information req Record adjuste form. Do not ac container types (mL) Container Size (mL) Container Type 5 800 1000	bul do hoj dume initially ner prop (see nilla volumes nilla volumes nilla volumes nilla volumes nilla volumes nilla volumes nilla volumes just pH for 3, 6, and 15, Preservalys (mL) 2,4 6,0
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Container Type Tag Cotor Proservative Expacted pH COC Line #1 COC Line #2 COC Line #3 COC Line #4 COC Line #4 COC Line #6 COC Line #7	Lt. Blue WaCH	₽iue 1,50, - -<2	Date/ 13 Bipwn HySO: <2	• • • • • • • • • • • • • • • • • • •	DO NOT AD 3 Green 6-8	8 Red HNO1 <2	18 Red Gluips HNO ₇ 	INER TYPES	pH. Add up to, exceed 2x they added at contain table below for used). Add oral sample contain Information requ Record adjuste form. Do not an container types (Container Size (mL) Container Size (mL) Container Type 3 (BDO) (Container Type 3 (BDO) (Container Type 3 (BDO) (Container Type 3 (SDO) (Container Type 3 (SDO) (Container Type 4 (125) (CO)	bul do hoj olume initially ner prop (see prop (see nije pH tag to sr and record issted. just pH to this just pH for 3, 6, and 15. Prosorvalyb (mL) NaCh 2,4 3,0 - - 2,0 - - 2,0 - - 2,0

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Container Type Tag Golo? Preservative	5/23 LL Biue NaOH	4 Bíuệ H _a SO ₄	13 Brown H ₂ SO ₄		3 Green Nose	B Red, HNO ₃	15 Red Stripe HNO ₃			
Expected pH	>12	<2	<2		6-8	<2	<2			a na j
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COC Line #1					*				acceptable for a container, record	
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version: 3,0

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B. Outfall Information

COLUMN STATES		NPDES PERMIT NUMBER	OUTFALL NUMBER
	Fermi 2 Power Plant	MI0037028	001
9,	WATER TREATMENT ADDITIVES Water treatment additives include any material that is added to water of treat the water.	used at the facility or to wastewater generated by t	he facility to condition or
	Approvals of water treatment additives are authorized by the DEQ und constitute approval of the water treatment additives that are included in	• • • • • • • • • • • • • • • • • • • •	NPDES permit does not
	A. Are there water treatment additives in the discharge from this facility X 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 additional litem C., Items 1. – 8. shall be updated if it has changed since the previously statement of the previously of the statement of the previously of the pr		e information listed in
	No. Continue with Item C.		
	C. Submit a list of water treatment additives that are or may be discharge below for each additive.	ged from the facility. Applicants are required to sub	mit the information listed
	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)		
	4. The outfall from which the water treatment additive is to be dischar	ged	
	5. The type of removal treatment, if any, that the water treatment add	itive receives prior to discharge	
	6. The water treatment additive function (i.e., microbiocide, flocculant)	
	7. A 48-hour LC50 or EC50 for a North American freshwater plankton	ic crustacean (either <i>Ceriodaphnia</i> sp., <i>Daphnia</i> sp.	, or Simocephalus sp.)
	 The results of a toxicity test for one other North American freshwat requirement of Rule 323.1057(2)(a) of the Water Quality Standards for rainbow trout, bluegill, or fathead minnow. 		• • • • • • • • • • • • •
	The required toxicity information (described in Items 7. and 8. above treatment additives listed on the DEQ's Internet page. To access the bottom of the right column under Water Quality Monitoring , click on the Water Treatment Additive List. If you intend to use one of the wate above needs to be submitted to the Water Resources Division. Note: constitute approval to discharge the water treatment additive. Commen	at information, go to http://www.michigan.gov/deq, Assessment of Michigan Waters. Under the Infor er treatment additives on this list, only the informati The availability of toxicity information for a water tre	click on Site Map, at the mation heading, click on ion in Items 1. through 6.
Hav If ye	WHOLE EFFLUENT TOXICITY (WET) TESTS N/A e any acute or chronic WET tests been conducted on any discharges or s, identify the tests and summarize the results on a separate sheet, unle stance with WET testing, see "Whole Effluent Toxicity Test Guidance an	ss the test has been submitted to the DEQ in the la	ist three (3) years. For
Thi	s completes Section III. Return the completed Application (Sections I. III. IV. VI [if applicable], 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.

		Environmental Q	uality (Permi	t # MI003702	8)		· · ·
Sample		<u> 1917 - Tan Stand</u>	Discharge Co	oncentration		an a	Approval
Point	Product	Function	Average	Maximum	Discharge I		Documentation
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	" <u>∎ 10 mg/C</u> "	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 s amount of app bromine	lied chlorine /			Permit Limitation Part I.A. 1:e
	Sodium Bisulfite	Dehalogenation agent	1.5 times the s amount of app bromine	lied chlorine /		_	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 LA 1 and Part LA 2
	Spectrus DT1400	Detox for CT1300	-				Permit Limitations Part LA 1 and Part LA 2
	Spectrus BD 1500	Deposit Control	- Seithide - Colling and Article - Colling - C	0.25 mg/l	24 hr/d	.30 d/yr	On File Letter dated 4/5/01
	Flogard MS6209	Corrosion Inhibitor		110 ng/1	24 hr/d	30 d/yr	On File Letter dated 5/10/01
	Muriatic Acid	Cleaning Agent for OR. Probe		0.47 ug/1 ** (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/1** 1 (pH 6.5-9.0)	24 hr/d	7 d/wk	On File Letter Dated 12/7/04
	Flogard MS6222	Corrosion Inhibitor	2	1.5 mg/L		30 d/yr	On File Letter Dated 6/27/03
	Aquathol K Aquatic	Herbicide		80 ug/l	24 hr /d	5 d/yr	On File Letter Dated May 24, 2007
	Reward Landscape and Aquatic Herbicide	Herbicide		- 84 ng/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 đ/yr	On File Letter Dated
Outfall 009	Sodium Hypochlorite	Biocide	<30 ug/L	38 ug/L	8 hr/d	4 d/yr	Permit Limitation

Attachment VII FERMI 2 NPDES PERMITTED WATER TREATMENT ADDITIVES This list includes those WTA that are currently approved by the Water Resources Division, Michigan Department of

				a the second second			Part I.A.5
	Polyfloc AP 1120	Coagulant (setting agent)	0 mg/L	0.1 mg/L		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
ing Salation (Salation)	Depositrol BL5400	Deposit Control		0.40 ug/L	8 hr/d	4 d/yr	On File Letter dated 6/17/03
article Distance	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		≪ _{⊯le} 4.3 ug/1:	See Permit		On File Letter dated 12/7/04
Outfall 011	Depositrol BL5307	Deposit Control	6 mg/L	15 mg/L		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 19, 2014

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

1. OUTFAI						MI003702	8	00		
. OUTPA		ON. Instructions	for this item are on	Page 3 of the	Appendix.					
A.	Receiving Water	Lake Erle via	Swan Creek		Hydrologic Unit	Code 04100001				
в. С	County Monr	oe	•		Township	enchtown				
с, Т	Town T6S	Range R10E	Section 21	1/4 NE	1/4, 1/4 NW	Private (French) I	Land Claim			
D.	_atitude 41.96	2590	L		Longitude -8	3.261856				
E. Ty	/pe of Wastewale	er Discharged (ch	eck all that apply t	o this outfall):						
	Contact Cooling Groundwater Cleanup Hydrostatic Pressure Test Noncontact Cooling Wa									
X	Image: State of the state									
X	Storm water su	ibject to effluent g	uidelines (indicate	a under which	category): <u>Stean</u>	n Electric Power G	eneration			
) Others (see Ta	able 8 – Other Co	mmon Types of W	astewater on F	age 17 in the Appe	ndix)				
F. Th	he Maximum Des	ign Flow Rate for	this outfall is: 0.	7 <u>2</u> MGD						
Flc H. Se	ow for this outfall easonal Discharg		years?	Continu	al Dischargers	MGY (Continu				
F	From		Through			Actual Discharge Vo	blume (MGD)	Annual Total		
F	From		Through			Actual Discharge Vo	blume (MGD)			
F	From		Through			Actual Discharge Vo	olume (MGD)			
F	From		Through			Actual Discharge Vo	plume (MGD)			
Ho		a discharge from	this outfall (on ave			y <u>12</u> Days/Yea	ŕ			
Ba	atch discharger	s are required to	provide the folio	_	al information:					
	there effluent flo	,	Yes	🗋 No						
Ba	atch Peak Flow F	Rate:		Numbe	r of batches dischar	ged per day:				
			Minimum		Aver	age	ĨV	laximum		
E	Batch Volume (g	allons)				ľ				
F	Batch Duration (I	minutes)								

EQP 4659-C (Rev. 1/2013)

B. Outfall Information

	TYPE OR PRINT						
ACILITY	Y NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER				
Fed dete Indu Fac was	DCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE leral regulations require that different industries report different inf armine the applicable federal regulations for this facility. An abbin ustry Type' section of the Appendix. Applicants are required to pro- ilities with production-based limits must report an estimated annu- testream is not regulated under federal categorical standards, the antial to be present in the discharge. To submit additional information	reviated list is on Page 11 in the 'Summary of li wide the name and the SIC or the NAICS code for Jal production rate for the next five (5) years or the applicant is required to report all pollutants	nformation to be reported by or each process at the facility, the life of the permit. If the				
PRO A. B.	DCESS INFORMATION Name of the process contributing to the discharge: <u>Misc</u> ellane SIC or NAICS code: <u>4911</u>	ous Low Volume Wastes	•				
-	Describe the process and provide measures of production: ume wastes consisting of chemically treated cooling syste = 800,000 GPY *SEE NOTE BELOW*	em water and other equipment drains. Ma	ximum anticipated				
А.	PROCESS INFORMATION Name of the process contributing to the discharge: Chemical I	Metal Cleaning Wastes					
В.	SIC or NAICS code: 4911						
C. Chemic	Describe the process and provide measures of production: cal metal cleaning wastes from the cleaning of piping or h	eat exchangers. Maximum anticipated vol	ume = 500,000 GPY				
PR A.	OCESS INFORMATION Name of the process contributing to the discharge: <u>Non-</u> chemi	ical Metal Cleaning Wastes					
B.	SIC or NAICS code: 4911						
C.	Describe the process and provide measures of production:						
Non-ch	emical metal cleaning wastes from the cleaning of piping	or heat exchangers. Maximum anticipated	l volume = 500,000 GPY				
А.	PROCESS INFORMATION Name of the process contributing to the discharge: <u>Storm</u> Wat	ter					
В.	SIC or NAICS code: 4911						
C.	Describe the process and provide measures of production:						
Storm	water from transformer containment areas and general s	torm drains. Maximum anticipated volume	= 450,000 GPY				
Ą.	PROCESS INFORMATION Name of the process contributing to the discharge:						
В,	SIC or NAICS code:						
Ċ.	Describe the process and provide measures of production:						
	: This outfall consists of a 3 chambered unit. The effluer						

B. Outfall Information

FACILITY NA	ME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI003702	28 OUTFALL NUMBER 009						
 3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS. Instructions for this item are on Page 4 of the Appendix. M 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 <i>Escherichia coli</i> or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The DEQ will use the indicator selected below in the permit issued based on this Application. Use <i>Escherichia coli</i> as an indicator of disinfection. 									
Submitted via DMRs or e-DMRs	Walver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type		
		Biochemical Oxygen Demand – five day (BOD₅)			mg/l		Grab 24-Hr Comp		
		Chemical Oxygen Demand (COD)			mg/l		Grab 24-Hr Comp		
	· .	Total Organic Carbon (TOC)			mg/l		Grab 24-Hr Comp		
		Ammonia Nitrogen (as N)			mg/l		Grab		
Ø		Total Suspended Solids			mg/l		Grab		
	Waiver Request Not Required	Total Dissolved Solids			mg/l		Grab		
	Waiver Request Not Required	Total Phosphorus (as P)			mg/l		Grab		
	Waiver Request Not Required	Fecal Coliform Bacteria (report geometric means)		Maximum 7-day	counts/100ml		Grab		
	Waiver Request Not Required	Escherichia coli (report geometric means)		Maximum 7-day	counts/100 ml		Grab		
	Waiver Request Not Required	Total Residual Chlorine			□ mg/i □ μg/i		Grab		
	Waiver Request Not Required	Dissolved Oxygen	Do Not Use	Minimum Daily	mg/i		Grab		
X		pH (report maximum and minimum of individual samples)	Minimum	Maximum	standard units		Grab		
		Temperature, Summer			□ ℉ □ ℃		Grab		
		Temperature, Winter			□℉□℃		Grab		
X	Waiver Request Not Required	Oil & Grease			mg/I		Grab		

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B. Outfall Information

FAC	LITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 009
Note	: For questions on this page, Tables 1 – 5 are found in the Appendi		
	PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION		
	Existing primary industries that discharge process wastewater are analysis for <u>selected</u> organic pollutants identified in Table 2 (as detern Industrial Category), and all of the pollutants identified in Table 3. Existi permittee-collected effluent analysis for any other chemical listed in Table	nined from Table 1, Testing Requirements for Org ing primary industries are required to also provide t	anic Toxic Pollutants by he results of at least one
	In addition, submit the results of all other effluent analyses performed will	thin the last three years for any chemical listed in Ta	ables 2 and 3.
	New primary industries that propose to discharge process wastewater listed in Tables 2 and 3 expected to be present in the facility's effluent.	are required to provide an estimated effluent conce	intration for any chemical
5.	DIOXIN AND FURAN CONGENER INFORMATION		
	Existing industries that use or manufacture 2,3,5-trichlorophenoxy 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Ex 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or present in the facility's effluent, are required to submit the results of Table 6. All effluent analyses for dioxin and furan congeners shall be co	rbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phos has reason to believe that 2,3,7,8-Tetrachlorodib at least one effluent analysis for the dioxin and f	phorothionate (Ronnel); enzo-p-dioxin (TCDD) is
	In addition, submit the results of all other effluent analyses performed w	ithin the last three years for any dioxin and furan co	ngener listed in Table 6.
	New industries that expect to use or manufacture 2,3,5-trichlorophen 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichlorophropionate (Ei 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or present in the facility's effluent, shall provide estimated effluent concentr	rbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phos has reason to believe that 2,3,7,8-Tetrachlorodib	enzo-p-dioxin (TCDD) is
6.	OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION Existing secondary industries or existing primary industries that dis one effluent analysis for any chemical listed in Tables 2 and 3 known or		omit the results of at least
	In addition, submit the results of all other effluent analyses performed wi	thin the last three years for any chemical listed in T	ables 2 and 3.
	New secondary industries or new primary industries that propose effluent concentration for any chemical listed in Tables 2 and 3 expected		to provide an estimated
7.	ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION All existing industries, regardless of discharge type, are required to p known or believed to be present in the facility's effluent, and a measi known or believed to be present in the facility's effluent. In addition, sul	ured or estimated effluent concentration for any c	hemical listed in Table 5
	for any chemical listed in Tables 4 and 5.		within the last three years
	New industries, regardless of discharge type, are required to provide a expected to be present in the facility's effluent.	an estimated effluent concentration for any chemica	al listed in Tables 4 and 5
8.	INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED New or existing industries, regardless of discharge type, are required otherwise injurious chemicals known or believed to be present in the to Quantitative effluent data for these chemicals that is less than five years	facility's effluent that have not been previously ide	
	NOTE: All effluent data submitted in response to questions 4, 5, 6, information, see Page II, Item 3. If the effluent concentrations are estimated by the completed for each data row: Parameter, CAS No., Cor requirements, see Page II, Item 5. Tables 1, 2, and 3 can be found in the	mated, place an "E" in the "Analytical Method" colu ncentration(s), Sample Type, and Analytical Met	umn. The following fields
	If Alternate Test Procedures have been approved for any parameter	er listed above (Items 4. through 8.), see Page	ii, Item 5. for additional

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B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant			NPDES PE	RMIT NUMBE)28	OUTFALL NUMBER 009		
Submitted	SAM				-	- 1995年 王朝公平年9月 -		
via DMRs or e-DMRs		CAS No.	Conc. (µg/l)	Conc. (µg/l)	Conc	Conc. (μg/l)	Sample Type	Analytical Method
	-						1	•
	See Attachment VIII		-					
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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 that discharges infrequently, in batch versus continuous discharge. The need to discharge is based upon the level within the basin, and is weather dependent. Discharge from the basin does not normally occur during the winter months. At the time samples were obtained from the intake and Outfall 001, the plant was unable to coordinate sampling of the basin within the same time frame. Representative samples will be obtained and analyzed as early as possible in 2014, and the results will be submitted to the MDEQ as soon as they become available.

B. Outfall Information

FAC	LITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 009							
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 DEQ unc constitute approval of the water treatment additives that are included in t		NPDES permit does not							
	A. Are there water treatment additives in the discharge from this facility	?								
	XI 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 additi Item C., Items 1 8. shall be updated if it has changed since the pr									
	No. Continue with Item C.	· · ·								
	C. Submit a list of water treatment additives that are or may be discharged below for each additive.	ged from the facility. Applicants are required to sub	nit the information listed							
	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)									
	4. The outfall from which the water treatment additive is to be discharge	ged								
	5. The type of removal treatment, if any, that the water treatment add	itive receives prior to discharge								
	6. The water treatment additive function (i.e., microbiocide, flocculant))								
	7. A 48-hour LC50 or EC50 for a North American freshwater plankton	ic crustacean (either <i>Ceriodaphni</i> a sp., <i>Daphnia</i> sp	, or Simocephalus sp.)							
	 The results of a toxicily test for one other North American freshwate requirement of Rule 323,1057(2)(a) of the Water Quality Standards for rainbow trout, bluegill, or fathead minnow. 	er aquatic species (other than a planktonic crustace s. Examples of tests that would meet this requirement	an) that meets a minimum ant include a 96-hour LC50							
	The required toxicity information (described in Items 7. and 8. above treatment additives listed on the DEQ's Internet page. To access the bottom of the right column under Water Quality Monitoring, click on As Water Treatment Additive List. If you intend to use one of the water treat needs to be submitted to the Water Resources Division. Note: The constitute approval to discharge the water treatment additive. Commen	at information, go to http://www.michigan.gov/deq, ssessment of Michigan Waters. Under the Informa atment additives on this list, only the information in e availability of toxicity Information for a water tre	click on Site Map, at the tion heading, click on the ltems 1, through 6, above							
lf ye	WHOLE EFFLUENT TOXICITY (WET) TESTS N/A any acute or chronic WET tests been conducted on any discharges or i b, identify the tests and summarize the results on a separate sheet, unlet tance with WET testing, see "Whole Effluent ToxIcity Test Guidance and	ss the test has been submitted to the DEQ in the last	st three (3) years. For							
ass	tance with WET testing, see "Whole Effluent Toxicity Test Guidance and This completes Section III. Return the complete any attachments) to one of the addresses on F complete this Application, contact the Permits S	d Requirements" on Page 17 In the Appendix. Commender ed Application (Sections I, III, IV, VI [if appli Page ii of this Application. If assistance is	icable], and							

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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

FACILI	Fermi 2 Power Plant		NPDES PERMIT	OUTFALL NUMBER 011					
1. OL	JTFALL INFORMATION. Instructions for	r this item are on Page 3 of the	Appendix.						
A,	Receiving Water Lake Erie via Sv	wan Creek	Hydrologic Uni	t Code 04100001					
. B ,	County Monroe	•	Township	enchtown					
C,	Town Range T6S R10E	Section 1/4 21 NE	1⁄4, 1⁄4 NW						
D.	Latitude 41.962590	·	Longitude	-83.261856					
E.	Type of Wastewater Discharged (che	ck all that apply to this outfall):	•						
	Contact Cooling	Groundwater Cleanup	🔲 Hydrosta	atic Pressure Test 🛛 🛛	Noncontact Cooling Water				
	🕅 Process Wastewater 🔲 Sanitary Wastewater 🗌 Storm Water - not regulated 🕅 Storm Water								
	X Storm water subject to effluent gu	idelines (indicate under which	category): <u>Stea</u>	m Electric Power Generati	on				
	Others (see Table 8 – Other Com	mon Types of Wastewater on	Page 17 in the App	endix)					
F.	The Maximum Design Flow Rate for t	his outfall is: 15 MGD							
		······································							
G H.	What is the Maximum Authorized Da Flow for this outfall for the next five ye Seasonal Discharge: List the discharge periods (by month)	ears? Contin	· · ·	MGY (Continue with Ite	•				
	From	Through	· ·	Actual Discharge Volume (M	GD) Annual Total				
	From	Through		Actual Discharge Volume (M	IGD)				
	From	Through		Actual Discharge Volume (M	IGD)				
	From	Through		Actual Discharge Volume (M	IGD)				
I.	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)								
	• · · · · · · · · · · · · · · · · · · ·		• • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	· ·				

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B. Outfall Information

PLEASE TYPE OR PRINT		
FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 011
 PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE Federal regulations require that different industries report different infor determine the applicable federal regulations for this facility. An abbre Industry Type' section of the Appendix. Applicants are required to provi Facilities with production-based limits must report an estimated annua wastestream is not regulated under federal categorical standards, th potential to be present in the discharge. To submit additional information 	viated list is on Page 11 in the 'Summary of Inform de the name and the SIC or the NAICS code for ea I production rate for the next five (5) years or the e applicant is required to report all pollutants whi	nation to be reported by ch process at the facility. life of the permit. If the
PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Monitoring P</u> B. SIC or NAICS code: <u>4911</u>	oint 011C - Oily Waste Treatment	
C. Describe the process and provide measures of production: Low volume waste consisting of the effluent from the treatment of anticipated flow = 73,000 GPD *NOTE: Currently Inactive		ard drains. Maximum
PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Service</u> Wat	er 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 water p	ump house. Maximum anticipated flow = 7.0) MGD
PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Storm</u> water		
B. SIC or NAICS code: <u>4911</u>		
C. Describe the process and provide measures of production:		
Storm water from area near Fermi 1 Power Plant main personnel p	barking lot. Maximum anticipated flow = 730,	.000 GPD
PROCESS INFORMATION A. Name of the process contributing to the discharge: Fire Protection	on flush water	•
B. SIC or NAICS code: 4911	•	
C. Describe the process and provide measures of production:		
Fire fighting system pressurization water blowoff. Maximum antici	pated flow = 3.6 MGD	
PROCESS INFORMATION A. Name of the process contributing to the discharge: General Ser	rvice water flow control.	
B. SIC or NAICS code: <u>4911</u>	•	
C. Describe the process and provide measures of production:		
Fermi 1 Power Plant General Service Water System blowoff. Maxi	mum anticipated flow = 1.00 MGD	

B. Outfall Information

FACILITY NAME Fermi 2 Power Plant NPDES PERMIT NUMBER MI0037028 OUTFALL NUMBER 011											
🛛 Cheo Please N											
Submitted via DMRs or e-DMRs	Walver Request and the Rationale Behind the Request		Paraméter	Maximum Monthly Concentration	Maximum Dally Concentration	Units	Number of Analyses	Sample Type			
<u></u>	See Attachment IX	Biochemical Oxy	gen Demand – five day (BOD ₅)	,		mg/l		Grab 24-Hr Comp			
		Chemical Oxyge	n Demand (COD)			mg/l		Grab			
		Total Organic Ca	rbon (TOC)			mg/l		Grab 24-Hr Comp			
		Ammonia Nitroge	en (as N)			mg/l		Grab 24-Hr Comp			
	· · ·	Total Suspended	I Solids			ˈmɡ/l	-	Grab 24-Hr Comp			
	Waiver Request Not Required	Total Dissolved	Solids	· · · ·		mg/l		Grab 24-Hr Comp			
	Waiver Request Not Required	Total Phosphoru	s (as P)	· · · · · · · · · · · · · · · · · · ·		mg/l		Grab 24-Hr Comp			
	Waiver Request Not Required	Fecal Coliform B	acteria (report geometric means)		Maximum 7-day	counts/100ml		Grab			
	Waiver Request Not Required	Escherichia coli	(report geometric means)		Maximum 7-day	counts/100 ml		Grab			
	Waiver Request Not Required	Total Residual C	hlorine	•	-	□ mg/l □ μg/l		Grab			
·	Waiver Request Not Required	Dissolved Oxyge	ù	Do Not Use	Minimum Daily	mg/l		Grab			
		pH (report maxin	num and minimum of individual samples)	Minimum	Maximum	standard units		Grab			
		Temperature, Su	Immer				-	Grab			
		Temperature, W	inter			୲୶ୖ୲		Grab			
	Waiver Request Not Required	Oil & Grease			~	mg/l		Grab			

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B. Outfall Information

FACILITY	5.5 · · · · · · · · · · · · · · · · · ·	Fermi 2 P	ower Plant	,			NPDES PER	MIT NUMBER	MI0037(028	OUTFALL NUMBER	[°] 01′
Note: Fo	r queeti		•	1 - 5 are fr	ound in the A	nnendiv						*****
	•	DUSTRY PRI				ppendix	•					
anal <u>)</u> Indu	ysis for <u>s</u> strial Cat	selected organ egory), and a	nic pollutants Il of the pollu	dentified i tants identif	in Table 2 (as fied in Table 3	determi . Existin	ned from Tab g primary indi	le 1, Testing F	Requiremen	nts for Org o provide t	ermittee-collected efflue ganic Toxic Pollutants the results of at least o effluent.	by
In ad	idition, su	ubmit the resu	ilts of all othe	r effluent ar	nalyses perforr	med with	in the last thre	e years for any	/ chemical i	listed in Tr	ables 2 and 3.	
					e process wast he facility's effl		re required to	provide an est	imated efflu	ient conce	entration for any chemic	cal
		FURAN CON										
2,3,5 2,4,5 prese	5-TP); 2- 5-trichloro ent in the	(2,4,5-trichlor ophenol (TCP) e facility's eff	rophenóxy) e); or hexach luent, are re	ethyl 2,2-di lorophrene quired to s	ichloropropiona (HCP), or kno ubmit the resu	ate (Erb ows or h ults of al	on); 0,0-dim has reason to t least one ef	thyl 0-(2,4,5-t believe that 2	richlorophe ,3,7,8-Tetra for the dic	enyl) phos achlorodib	propanoic acid, (Silve sphorothionate (Ronne senzo-p-dioxin (TCDD) furan congeners listed	el);) is
In a	ddition, s	ubmit the resu	ults of all othe	er effluent a	inalyses perfor	rmed with	nin the last thr	ee years for an	y dioxin an	d furan co	ongener listed in Table	6.
2,3,5 2,4,5	5-TP); 2- 5-trichloro	-(2,4,5-trichlor ophenol (TCP)	rophenoxy) e '); or hexach	ethyl 2,2-di lorophrene	ichloropropiona (HCP), or kno	ate (Erb ows or h	on); 0,0-dime nas reason to	thyl 0-(2,4,5-t	richlorophe 3,7,8-Tetra	achlorodib	 propanoic acid (Silve sphorothionate (Ronne penzo-p-dioxin (TCDD) able 6. 	el);
Exis	ting seco		stries or exis	sting prima	ry industries			cess wastewate			omit the results of at lea	ast
In ad	dition, su	ubmit the resu	ults of all othe	r effluent ar	nalyses perform	med with	in the last thre	e years for any	y chemical l	listed in T	ables 2 and 3.	
								onprocess was n the facility's e		ə required	I to provide an estimat	ted
					FORMATION							
knov knov	wn or bel wn or bell	lleved to be p	present in the resent in the i	e facility's e facility's effl	offluent, and a	measur	ed or estimat	ed effluent cor	centration	for any cl	chemical listed in Table hemical listed in Table within the last three yea	в 5
		ies, regardles be present in ti			required to pr	rovide an	estimated eff	luent concentra	ation for an	y chemica	al listed in Tables 4 and	d 5
New othe	rwise inju	urious chemic	es, regardles als known o	s of dischar r believed t	rge type, are r	in the fac	cility's effluent	that have not			centration for any toxic ntified in this Application	
Infor	mation, s I be com	see Page II, It npleted for e	tem 3. If the ach data ro	effluent co w: Param	ncentrations a	re estim o., Conci	ated, place ar entration(s), {	"E" in the "An	alytical Me	thod" colu	3. To submit addition umn. The following fie hod. For analytical to	elds
	Iternate 7 uctions.	Test Procedu	ires have be	en approve	ed for any pa	rameter	listed above	(Items 4. thro	ough 8.), s	ee Page	li, Item 5. for additio	nal

PLEASE TYPE OR PRINT

FACILITY NAME Fermi 2 Power Plant				NPDES PERMIT NUMBER MI0037028			OUTFALL NUMBER 011		
Submitted	S	AMPLE DATE 🗲							
via DMRs or e-DMRs	PARAMETER	CAS No.	Conc. (µg/l)	Conc. ≆ (µg/l)_	Conc. (µg/l)	Çonc.i≓ (µg/l)	Sample Type	Analytical Method	
	See Attachment IX						· .		
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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 from the Fermi 2 Power Plant 011 for the following reasons:

- Monitoring is required at Outfall 011 only during times of oily waste water 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.

B. Outfall Information

	PLEASE TYPE OR PRINT		
FAC	ILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 011
9.	WATER TREATMENT ADDITIVES Water treatment additives include any material that is added to water treat the water.	used at the facility or to wastewater generated by	the facility to condition or
	Approvals of water treatment additives are authorized by the DEQ und constitute approval of the water treatment additives that are included in		NPDES permit does not
	 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 additilitem C., Items 1. – 8. shall be updated if it has changed since the pr No. Continue with Item C. 		
	C. Submit a list of water treatment additives that are or may be discharge below for each additive.	ged from the facility. Applicants are required to sub	mit the information listed
ĺ	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)		
	4. The outfall from which the water treatment additive is to be dischar	ged	
	5. The type of removal treatment, if any, that the water treatment add	itive receives prior to discharge	
	6. The water treatment additive function (i.e., microbiocide, flocculant)	
	7. A 48-hour LC50 or EC50 for a North American freshwater planktor	ilc crustacean (either <i>Ceriodaphnia</i> sp., <i>Daphnia</i> sp	., or Simocephalus sp.)
	 The results of a toxicity test for one other North American freshwat requirement of Rule 323.1057(2)(a) of the Water Quality Standards for rainbow trout, bluegill, or fathead minnow. 	, , , ,	
	The required toxicity information (described in Items 7, and 8, above treatment additives listed on the DEQ's Internet page. To access the bottom of the right column under Water Quality Monitoring , click on A Water Treatment Additive List. If you intend to use one of the water tree needs to be submitted to the Water Resources Division. Note: Th constitute approval to discharge the water treatment additive. Commer	at Information, go to http://www.michigan.gov/deq, ssessment of Michigan Waters. Under the Informa atment additives on this list, only the Information in e availability of toxicity information for a water tre	click on Site Map, at the ation heading, click on the Items 1. through 6. above
°Ha∖ If yé	WHOLE EFFLUENT TOXICITY (WET) TESTS we any acute or chronic WET tests been conducted on any discharges or es, identify the tests and summarize the results on a separate sheet, unle istance with WET testing, see "Whole Effluent Toxicity Test Guidance an	ss the test has been submitted to the DEQ in the la	st three (3) years. For
L	This completes Section III. Return the complet any attachments) to one of the addresses on I complete this Application, contact the Permits	Page II of this Application. If assistance I	

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.

FACILIT		Power Plant	27-1527 (1997) 27-25 (1997) 27-15 (1997) 27-15 (1997) 27-15 (1997) 27-15 (1997) 27-15 (1997) 27-15 (1997) 27-15	· · ·	NPDES PERMIT NUMBER MI0037028 OUTFALL NUMBER 013						
1. OU ⁻	FFALL INFORMATI	ON. Instructions	for this item are or	n Page 3 of the	Appendix.						
А.	Receiving Water	Lake Erie			Hydrologic Unit Code 04100001						
B.	County Monro				Township	enchtown					
С.	Town T6S	Range R10E	Section 21	1⁄4 SE	1/4, 1/4 NW	Private (French) Land	l Claim				
D.	Latitude 41,95				Londitude	3.259636					
E.	E. Type of Wastewater Discharged (check all that apply to this outfall):										
	Contact Coolin	ġ	Groundwater	Cleanup	Hydrosta	tic Pressure Test	Nonco	ntact Cooling Water			
	Process Waste	ewater	Sanitary Was	stewater	Storm W	ater - not regulated	Storm	Water - regulated			
	Storm water subject to effluent guidelines (indicate under which category):										
	I Others (see Table 8 - Other Common Types of Wastewater on Page 17 in the Appendix)										
F.	The Maximum Des	sign Flow Rate fo	r this outfall is: 5	.5MGD							
						•					
G	What is the Maxin	num Authorized I	Jally Discharge	Season	al Dischargers	450 MGY (Continue wi	ith liem H				
0	Flow for this outfal		• -			MGD (Continue with					
H.	Seasonal Discharg			COMING							
11.		-	n) and the volume	dischärged in t	he space provided I	below.					
	From		Through			Actual Discharge Volum	Annual Total				
	From		Through			Actual Discharge Volum	e (MGD)				
	From		Through			Actual Discharge Volume (
	From		Through			Actual Discharge Volum	e (MGD)				
١.	Continuous Discha How often is there	•	this outfall (on ave	erage)?	_24 Hours/Da	ny <u>24</u> Days/Year]			
	Batch discharger	s are required to	provide the follo	wing addition	al information:						
	Is there effluent flo	•	•	-							
	Batch Peak Flow F					ged per day:					
			Minimum		Aver	200	\$./~v	imum			
	Batch Volume (g	allons)			Aven		1VIAX				
	Batch Duration (I										
			<u> </u>				<u> </u>				
					•						

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION III – Industrial and Commercial Wastewater

PLEASE TYPE OR PRINT

B. Outfall Information

FACILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 013	
2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE Federal regulations require that different industries report different inforn determine the applicable federal regulations for this facility. An abbrev Industry Type' section of the Appendix. Applicants are required to provid Facilities with production-based limits must report an estimated annual wastestream is not regulated under federal categorical standards, the potential to be present in the discharge. To submit additional information	viated list is on Page 11 in the 'Summary of Inform de the name and the SIC or the NAICS code for eac production rate for the next five (5) years or the papplicant is required to report all pollutants which	nation to be reported by ch process at the facility. life of the permit. If the	
PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Treatment of</u> B. SIC or NAICS code: <u>4911</u> C. Describe the process and provide measures of production: Overflow from the settling of dredged materials from the lake bottor		ated flow = 450 MGY	
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;			
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:	· · · · · · · · · · · · · · · · · · ·		

B. Outfall Information

LEASE TYPE	OR PRINT								
FACILITY NAM	ILITY NAME Fermi 2 Power Plant		NPDES PERMIT NUMBER MI003702		0UTFALL NUMBER 013			,	•
X Chec Please N	LUENT CHARACTERISTICS - CONVENTION this box if additional information is included lote: Rule 323.1062 allows the use of either sued based on this Application.	d as an attachmen - Escherichia coli c	t. To submit additional informati r Fecal Coliform Bacteria as an	ion, see Page indicator that e	ii, Item 3. effluent has been d	lisinfected. The DE eria as an indicator		cator selected	below in the
Submitted via DMRs or e-DMRs	Waiver Request and the Rationale Behind the Request		Parameter		Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
		. Biochemical Oxy	gen Demand – five day (BOD ₅)				mg/l		Grab 24-Hr Comp
	See Attachment X	Chemical Oxyge	Demand (COD)				mg/l		Grab 24-Hr Comp
		Total Organic Ca	rbon (TOC)				mg/I		Grab 24-Hr Comp
	- I	Ammonîa Nitroge	en (as N)				mg/l		Grab 24-Hr Comp
×.		Total Suspended	Solids				mg/l		Grab
	Waiver Request Not Required	Total Dissolved \$	Solids				mg/l		Grab
	Waiver Request Not Required	Total Phosphoru	s (as P)				mg/l		Grab
	Waiver Request Not Required	Fecal Coliform B	acteria (report geometric mean	s) ·		Maximum 7-day	counts/100ml		Grab
	Waiver Request Not Required	Escherichia coli	(report geometric means)			Maximum 7-day	counts/100 ml		Grab
	Waiver Request Not Required	Total Residual C	hlorine				□ mg/l □ μg/l		Grab
	Waiver Request Not Required	Dissolved Oxyge	n		Do Not Use	Minimum Daily	mg/l		Grab
X		pH (report maxin	num and minimum of individual s	samples)	Minimum	Maximum	standard units		Grab
		Temperature, St	Immer				⊡°F ⊡°C		Grab
		Temperature, W	inter				□℉□℃		Grab
	Waiver Request Not Required	Oil & Grease					mg/l		Grab

EQP 4659-C (Rev. 1/2013)

B. Outfall Information

FACILITY NAME Fermi 2 Power Plant		NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 013
Note: For questions on this page, Tables 1 4. PRIMARY INDUSTRY PRIORITY POLLU		x.	
Existing primary industries that disch analysis for <u>selected</u> organic poliutants i Industrial Category), and all of the poliuta	arge process wastewater are dentified in Table 2 (as detern ints identified in Table 3. Exist	required to submit the results of at least one nined from Table 1, Testing Requirements for C ing primary industries are required to also provid e 2 known or believed to be present in the facility	organic Toxic Pollutants by the results of at least one
In addition, submit the results of all other	effluent analyses performed wi	thin the last three years for any chemical listed in	Tables 2 and 3.
New primary industries that propose to listed in Tables 2 and 3 expected to be pr		are required to provide an estimated effluent con	centration for any chemical
5. DIOXIN AND FURAN CONGENER INFO			
2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ell 2,4,5-trichlorophenol (TCP); or hexachlo	hyl 2,2-dichloropropionate (E prophrene (HCP) or knows or uired to submit the results of	acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy rbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) ph has reason to believe that 2,3,7,8-Tetrachloroo at least one effluent analysis for the dioxin and nducted using USEPA Method 1613.	osphorothionate (Ronnel); libenzo-p-dloxin (TCDD) is
In addition, submit the results of all other	effluent analyses performed w	ithin the last three years for any dioxin and furan	congener listed in Table 6.
2,3,5-TP); 2-(2,4,5-trichlorophenoxy) el 2,4,5-trichlorophenol (TCP); or hexachlo	hyl 2,2-dichloropropionate (E prophrene (HCP), or knows or	oxy acetic acid (2,4,5-T); 2-(2,3,5-trichloropheno rbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) ph has reason to believe that 2,3,7,8-Tetrachloroc ations for the dioxin and furan congeners listed in	osphorothionate (Ronnel); libenzo-p-dioxin (TCDD) is
6. OTHER INDUSTRY PRIORITY POLLUT			
		scharge nonprocess wastewater are required to a believed to be present in the facility's effluent.	ubmit the results of at least
In addition, submit the results of all other	effluent analyses performed w	thin the last three years for any chemical listed in	Tables 2 and 3.
New secondary industries or new pri effluent concentration for any chemical lis	• • • •	to discharge nonprocess wastewater are requir t to be present in the facility's effluent.	ed to provide an estimated
7. ADDITIONAL TOXIC AND OTHER POLI			
known or believed to be present in the	facility's effluent, and a meas acility's effluent. In addition, su	provide the results of at least one analysis for an ured or estimated effluent concentration for any bmit the results of any effluent analysis performe	chemical listed in Table 5
New industries, regardless of discharge expected to be present in the facility's eff		an estimated effluent concentration for any chem	ical listed in Tables 4 and 5
8. INJURIOUS CHEMICALS NOT PREVIO			
	believed to be present in the	d to provide a measured or estimated effluent co facility's effluent that have not been previously is s old shall be reported.	
information, see Page II, Item 3. If the	effluent concentrations are esti v: Parameter, CAS No., Co	, 7, and 8 above should be recorded on Page mated, place an "E" in the "Analytical Method" c ncentration(s), Sample Type, and Analytical M re Appendix.	olumn. The following fields
If Alternate Test Procedures have bee instructions.	en approved for any paramet	er listed above (Items 4, through 8,), see Pag	e ii, Item 5. for additional
			•
	5		9-C (Rev. 1/2013)

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NA	FACILITY NAME Fermi 2 Power Plant			NPDES PERMIT NUMBER MI0037028				OUTFALL NUMBER 013	
Submitted	SAMPLE DATE >								
via DMRs or e-DMRs	PARAMETER CAS		Conc. (µg/l) ≡	Conc. (µg/l)	Conc,	Conc. (µg/l)	Sample Type	Analytical Method	
	See Attachment X			•					
	· ·								
				-					
				*					
			•						
					-				

EQP 4659-C (Rev. 1/2013)

Attachment IX

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 from the Fermi 2 Power Plant 013 for the following reasons:

- Monitoring is required at Outfall 013 only 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 electronic Discharge Monitoring Reports (eDMRs). There are no process wastewaters that are discharged via this monitoring point.

٠

B. Outfall Information

FAC	PLEASE TYPE OR PRINT CILITY NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028	OUTFALL NUMBER 013
9,	WATER TREATMENT ADDITIVES Water treatment additives include any material that is added to water u treat the water.	sed at the facility or to wastewater generated by t	he facility to condition or
	Approvals of water treatment additives are authorized by the DEQ und constitute approval of the water treatment additives that are included in the second se		NPDES permit does not
	A. Are there water treatment additives In the discharge from this facility?		
	X Yes.		
	No. Proceed to Item 10.		
	B. Have these water treatment additives been previously approved?		
	X Yes. Submit a list of the previously-approved water treatment addition Item C., Items 1. – 8, shall be updated if it has changed since the pre-		e information listed in
	□ No. Continue with Item C.	NOTE: See Attachment	VII
	C. Submit a list of water treatment additives that are or may be discharg below for each additive.	ed from the facility. Applicants are required to subr	nit the Information listed
	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)		
	4. The outfall from which the water treatment additive is to be discharge	jed	
	5. The type of removal treatment, if any, that the water treatment additional treatment additin additin additin additionad treatment additional treatment ad	ive receives prior to discharge	
	6. The water treatment additive function (i.e., microbiocide, flocculant)		
	7. A 48-hour LC50 or EC50 for a North American freshwater planktoni	c crustacean (elther <i>Ceriodaphnia</i> sp., <i>Daphnia</i> sp.	, or <i>Simocephalus</i> sp.)
	 The results of a toxicity test for one other North American freshwate requirement of Rule 323.1057(2)(a) of the Water Quality Standards for rainbow trout, bluegill, or fathead minnow. 	er aquatic species (other than a planktonic crustace Examples of tests that would meet this requireme	an) that meets a minimum nt include a 96-hour LC50
	The required toxicity information (described in Items 7. and 8. above) treatment additives listed on the DEQ's Internet page. To access that bottom of the right column under Water Quality Monitoring, click on As Water Treatment Additive List. If you intend to use one of the water treat needs to be submitted to the Water Resources Division. Note: The constitute approval to discharge the water treatment additive. Comment	t Information, go to http://www.michigan.gov/deq, sessment of Michigan Waters. Under the Informa- timent additives on this list, only the Information in I availability of toxicity information for a water treat	click on Site Map, at the tion heading, click on the tems 1. through 6. above
Hav If ye	WHOLE EFFLUENT TOXICITY (WET) TESTS N/A re any acute or chronic WET tests been conducted on any discharges or r es, identify the tests and summarize the results on a separate sheet, unles istance with WET testing, see "Whole Effluent Toxicity Test Guidance and	s the test has been submitted to the DEQ in the las	t three (3) years. For
<u> </u>	This completes Section III. Return the complete		

complete this Application, contact the Permits Section.

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION IV – Storm Water

ILI I	Y NAM	Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028
Fac Indi	ilities i ustrial :		ated "industrial activity" as defined in 40 CFR 122.26(b)(14). See the DEQ ter then click on Industrial Program) for a complete list of regulated industrial
	munici	storm water runoff from this facility discharged to the su pal separate storm sewer system)? Note: If storm wate water treatment system, or a privately-owned activated sludg	rface waters of the state either directly or through another conveyance (ie er is discharged to a municipal combined storm sewer system, a municipa re treatment system, check the "No" box.
		es, Continue to next question. Io, STOP: The rest of Section IV does not need to be co	mpleted. No storm water authorization required.
В,	Are th exclud certify	ere any industrial activities or materials exposed to storn led from an NPDES Permit if there are no industrial activiti	n water runoff at this facility? Storm water discharge requirements may be es or materials exposed to storm water runoff. To qualify, the applicant sha claim a condition of "no exposure." These requirements are found in the No
	X X	es. Complete the remainder of Section IV.	
		lo. STOP: The rest of Section IV does not need to be co	mpleted. Complete the NEC Form and submit it with this Application.
C.	Has th	e facility developed a SWPPP according to the requirement	s of the NPDES permit?
	X X	/es	
	ΠN	lo. Note: The applicant must complete this program ele	ment to receive storm water discharge authorization.
D ,.	Has th the sta	ate?	o unauthorized discharges to the storm sewer system or the surface waters o
	X Y	ves. NOTE: Plant drawings have been review	ed, and no unauthorized discharges have been identified.
		lo, Note: The applicant must complete this program ele	ment to receive storm water discharge authorization.
E,	Has th	ne facility implemented the non-structural controls described	in the SWPPP?
	X N	/es,	
		No. Note: The applicant must complete this program ele	ment to receive storm water discharge authorization.
F.	Have	all the structural controls described in the SWPPP been con	structed and put into operation?
		Yes.	
		No. Note: The applicant must complete this program ele	ment to receive storm water discharge authorization.
G.		this facility have a certified industrial storm water operat ures described in the SWPPP?	or who has supervision over the facility's storm water treatment and contr
	Ø	res, <u>Mary</u> J. Hana	<u> 127</u> 68
		Storm Water Operator	
		No. Note: The applicant must complete this program ele	
H.	ls sto apply		a municipal separate storm sewer system from (SKIP to next question if nor
		Secondary containment structures that are required by stat stored in this area.	e or federal law. On a separate page, provide a list of the materials that a
		Areas identified on Michigan's list of Sites of Environmental Act, 1994 PA 451, as amended, Part 201 (formerly 307).	Contamination, pursuant to the Natural Resources and Environmental Protecti
		•	lischarge is a significant contributor of pollutants to surface waters of the state
		torm water from this facility discharges to the following recei	ving water(s). Lake Erie, Swan Creek

Attachment XI

DTE Energy: Fermi 2 Power Plant - 2014 NPDES Permit Application No. MI0037028 Section IV, Item 1.H. – Material Stored in Secondary Containment Structures

1, No. 2 Fuel Oil

2. Sodium Hypochlorite

3. Mineral Oil

Michigan Department of Environmental Quality – Water Resources Division WASTEWATER DISCHARGE PERMIT APPLICATION SECTION VI – Cooling Water Intake Structures

ACILIT	ry NAME Fermi 2 Power Plant	NPDES PERMIT NUMBER MI0037028
. co	DOLING WATER INTAKE STRUCTURE	
bes exis	ection 316(b) of the Federal Act requires that the location, design, constructions technology available (BTA) for minimizing adverse environmental impacts isting facility utilizing a cooling water intake structure shall submit information an two million gallons per day and (2) the facility uses at least twenty-five per	s [impingement mortality (IM) and entrainment (E)]. Any new or n on the CWIS for review if (1) the design intake flow rate is greater
For	r facilities meeting these conditions, the information that is required to be su	ubmitted depends on the facility. Indicate the status of the facility:
info	New Facility. In accordance with the Final Rules promulgated by USEPA ormation as specified in 40 CFR 122.21(r) and 40 CFR 125.86. Applicants to achment to this application form.	
	Existing Facility. Although Final Rules have yet to be promulgated by US set requirements under Section 316(b) of the Federal Act determined by the	
соп	or existing facilities, the following is a partial list of technologies and control n nsidered BTA and would meet the performance standards for minimization of nformance standards for IM, E, or both, is indicated in parenthesis for each i	of IM and entrainment E. Whether a particular BTA meets the
•	A closed-cycle recirculating system or a CWIS withdrawing intake water a (both IM and E).	at a rate commensurate with a closed-cycle recirculating system
•	A maximum through-screen design intake velocity at the cooling water in	take structure of 0.5 feet per second or less (IM only).
٠	Submerged cylindrical wedge-wire screens if the following conditions are counter-currents exist to promote cleaning of the screen face, maximum slot size is appropriate for the size of eggs, larvae, and juveniles of all fis	through-screen design intake velocity is 0.5 feet/second or less, and the
٠	An industrial or commercial facility that has the CWIS located in a river o of the mean annual flow of the river or stream (E only).	or stream and the CWIS has a design intake flow equal to 5 percent or le
•	Rotating screens with an automatic fish return system or similar system f water with minimal stress (IM only).	to increase the likelihood that fish impinged will be returned to the sourc
•	Fish exclusion devices (IM only).	
Ар	oplicants for existing facilities shall compile and submit all of the Inform	mation requested below as an attachment to this application form:
1.	Latitude and longitude in degrees, minutes, and seconds for each CWIS	
2.	The capacity utilization rate and explanation of the rate (if the facility is a	power plant)
3.	A flow distribution and water balance diagram that includes all sources o	f water to the facility, recirculating flows, discharges, and flow rates
4.	The mean annual flow of the river or stream if the CWIS is located in a ri	iver or stream
5.	A diagram and narrative description of the configuration and location of e locations and sizes, debris removal systems (e.g., traveling screens and	
6,	A narrative description of the operation of each of the CWIS (include inta per year, seasonal changes in operation, debris removal system operation intake flows or IM and E)	
7.	A narrative description of the operation of the cooling water system (description of the system, the number of days of the year the cooling was system, and any anticipated changes)	
8.	The calculation of the maximum design through-screen intake velocity (t velocity)	he applicant may also submit the maximum actual through-screen
9.	A summary of any available data for IM and E (include data, estimates, or systems)	or descriptions on the volume or number of fish removed by trash remov
co stu	systems) lote: If Final Rules are promulgated under 316(b) or the DEQ determines th omply with BTA requirements or requires more evaluation, the applicant may tudies. This application may be considered administratively incomplete until formation see Page II Item 3. Comments NOTE: See Attachme	y be required to provide further information and/or conduct additional

Attachment XII

Fermi 2 Power Plant - NPDES Permit Application for Reissuance March 19, 2014 MI0037028

From:	Robert H Reider/Employees/dteenergy
To:	Mary J Hana/Employees/dteenergy@dteenergy
Çc:	"Matthew T Shackelford" <shackelfordm@dteenergy.com>, Nicholas J Chuey/Employees/dteenergy@dteenergy</shackelfordm@dteenergy.com>

Date: Tuesday, March 18, 2014 09:17PM

Subject: Fw: Re: 316(b) Implementation

History: **4** This message has been replied to.

Mary

Asad's response regarding Fermi 2's 316(b) requirements.

Bob

-----Forwarded by Robert H Reider/Employees/dteenergy on 03/18/2014 09:15PM -----

To: "Robert H Reider" <reiderr@dteenergy.com> From: "Asad Quraishi" <quraisha@michigan.gov> Date: 03/20/2007 11:19AM Cc: "Mary J Hana" <hanamj@dteenergy.com> Subject: Re: 316(b) Implementation

Bob,

Fermi 2 power plant does not has to submit anything more.

Asad Quraishi MDEQ - Water Bureau Permits Section Tel: 517-335-4119 Fax: 517-241-8133 quraisha@michigan.gov

>>> Robert H Reider <reiderr@dteenergy.com> 3/20/2007 11:07 AM >>> Asad -

My January 30, 2007 "compliance letter" responded to permit requirement Part I.A.16.a.

It was my understanding that we still have to submit the information specified in Part I.A.16.b. (40 FR 122.21(r)(2), (3) and (5)). We do not have to submit the CDS identified in Part I.A.16.c. because the plant has closed-cycle cooling. If this understanding is incorrect please let me know.

Bob

----- "Asad Quraishi" <quraisha@michigan.gov> wrote: -----

To: "Robert H Reider" <reiderr@dteenergy.com> From: "Asad Quraishi" <quraisha@michigan.gov> Date: 03/20/2007 10:32AM Subject: Re: 316(b) Implementation

http://arbm04.dteco.com/mail/e53742.nsf/(%24Inbox)/8368EE19C0BCAA8485257CA000... 3/19/2014

Bob,

Fermi 2 Power Plant does not has to submit anything more. Please refer

to my memo dated 2/6/07. The permittee has already fulfilled the permit

requirement of Part I.A.16.

Asad Quraishi MDEQ - Water Bureau Permits Section Tel: 517-335-4119 Fax: 517-241-8133 quraisha@michigan.gov

>>> Robert H Reider <reiderr@dteenergy.com> 3/12/2007 10:06 AM >>> Asad -

I noticed the Fermi 2 Power Plant has a NA for 122.21 info and IM/E SR. While the facility is not required to submit an IM/E report because it has a closed-cycle re-circulating system, it is my understanding that it still must submit the 122.21 information. If this is incorrect please

let me know as soon you can.

Bob

----- "Asad Quraishi" <quraisha@michigan.gov> wrote; -----

To: <aegaulke@aep.com>, <jagulvas@cmsenergy.com>, <reiderr@dteenergy.com>, <slefurge@ghblp.org>, <jvisscher@hollandbpw.com>, <gfm@lbwl.com>, <ebooth@mblp.org>, <harrisal@pldmist.ci.detroit.mi.us>, <david.lee@we-energies.com>, <jfrench@wyan.org> From: "Asad Quraishi" <quraisha@michigan.gov> Date: 03/06/2007 09:56AM cc: "William Creal" <CREALW@michigan.gov> Subject: 316(b) Implementation

Attached please find the following documents.

1. 316(b) phase II facilities implementation schedule status.

2. List of 316(b) phase II permits. This list is related to the column "App Req in Permit" of the 316(b) phase II facilities implementation schedule.

3. Permit condition proposed language.

4. Revised one page summary regarding Second Circuit Court Decision. For nuclear plants decision, "remanded" is replaced with "denied". The word denied better reflects the decision of the court than remanded.

Asad Quraishi MDEQ - Water Bureau Permits Section Tel: 517-335-4119 Fax: 517-241-8133 quraisha@michigan.gov

[attachment "PIIfacstatus.xls" removed by Robert H Reider/Employees/dteenergy] [attachment "316bPermits.doc" removed by Robert H Reider/Employees/dteenergy] [attachment "316IIPLRC.doc" removed by Robert H Reider/Employees/dteenergy] [attachment "2dCirCt.doc" removed by Robert H Reider/Employees/dteenergy]

http://arbm04.dteco.com/mail/e53742.nsf/(%24Inbox)/8368EE19C0BCAA8485257CA000... 3/19/2014



RICK SNYDER GOVERNOR STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

LANSING



DÂN WYANT DIRECTOR

February 14, 2014

DTE Energy Öne Energy Plaza Room 655 G.O. Detroit, Michigan, 48226

Dear Permittee:

SUBJECT: Notification to Reapply for National Pollutant Discharge Elimination System (NPDES) Permit No. MI0037028

Our records indicate that the Detroit Edison Company was issued NPDES discharge Permit No. MI0037028 on June 3, 2010, pursuant to Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). This authorization to discharge will expire on October 1, 2014. In order to retain the authorization to discharge beyond the expiration date, DTE Energy shall submit the information and forms required by the Department of Environmental Quality (DEQ) to the Permits Section no later than 180 days prior to the expiration date above.

To fulfill the reapplication requirements, you need to complete a State of Michigan NPDES Permit Application Form with a revision date of 2013. The Application and Appendix may be downloaded from the Internet at www.michigan.gov/deq. In the left column, click on water, then surface water. In the right column, click on How to Apply for an NPDES Permit. To access the documerits, click on Permit Application for Surface Water Discharge and/or Permit Application Appendix. If you do not have access to the Internet, please contact the Permits Section at 517-284-5568, and an Application Form and Appendix will be sent to you. You must complete all the items on the form that are applicable to your discharge. An incomplete Application does not fulfill the reapplication provisions of your permit.

Act 451 requires an Application Fee when submitting an Application for reissuance of an NPDES Permit. The fee for your facility is \$750, This fee must accompany the Application in order for the DEQ to consider the Application complete. Please make sure that the facility's NPDES Permit number and the designation "WRD-NP1" appear on the check.

Please complete the required forms and submit them to our office with the Application Fee by April 4, 2014.

If you have any questions regarding this letter, please contact Keyin Cook at 517-284-5585.

Sincerely,

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Christine Alexander, Chief Lakes Erle and Huron Permits Unit Permits Section, Water Resource Division

cc: File (electronic)

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