



**Mercury Low Emitting Electrical Generating Unit
Demonstration Test Report**

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AIR QUALITY DIV.

**We Energies
Presque Isle Power Plant
Flue 6 Stack
Marquette, Michigan
July 19 through August 22, 2016**

**Report Submittal Date
September 12, 2016**

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Mostardi Platt

Project No. M162008C



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

**RENEWABLE OPERATING PERMIT
REPORT CERTIFICATION**

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating Permit (ROP) program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as specified in Rule 213(3)(b)(II), and be made available to the Department of Environmental Quality, Air Quality Division upon request.

Source Name Presque Isle Power Plant County Marquette

Source Address 2701 N. Lakeshore Blvd. City Marquette

AQD Source ID (SRN) B4261 ROP No. MI-ROP-B4261-2013b ROP Section No. NA

Please check the appropriate box(es):

Annual Compliance Certification (Pursuant to Rule 213(4)(c))

Reporting period (provide inclusive dates): From _____ To _____

1. During the entire reporting period, this source was in compliance with ALL terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the ROP.

2. During the entire reporting period this source was in compliance with all terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference, EXCEPT for the deviations identified on the enclosed deviation report(s). The method used to determine compliance for each term and condition is the method specified in the ROP, unless otherwise indicated and described on the enclosed deviation report(s).

Semi-Annual (or More Frequent) Report Certification (Pursuant to Rule 213(3)(c))

Reporting period (provide inclusive dates): From _____ To _____

1. During the entire reporting period, ALL monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred.

2. During the entire reporting period, all monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred, EXCEPT for the deviations identified on the enclosed deviation report(s).

Other Report Certification

Reporting period (provide inclusive dates): From 7/19/2016 To 8/22/2016

Additional monitoring reports or other applicable documents required by the ROP are attached as described:
Mercury 30 day LEE Test Report: M162008C We Energies PIPP Flue 6 7/19/16 - 8/22/16

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this report and the supporting enclosures are true, accurate and complete

Leslie D. Kowalski Asset Manager - PIPP (906) 226-5757
Name of Responsible Official (print or type) Title Phone Number

Leslie D. Kowalski 09/15/2016
Signature of Responsible Official Date

* Photocopy this form as needed.

1.0 EXECUTIVE SUMMARY

MOSTARDI PLATT conducted a mercury (Hg) low emitting electrical generating unit (LEE) test program for We Energies at the Presque Isle Power Plant in Marquette, Michigan. This report summarizes the results of the test program and test methods used.

The test location, test dates, and test parameter are summarized below.

TEST INFORMATION		
Test Location	Test Dates	Test Parameter
Flue 6 Stack	July 19 through August 22, 2016	Mercury (Hg)

The purpose of this test program was to demonstrate the LEE status per 40CFR63, UUUUU (Utility MATS Rule) Section 63.10005 (h)(1)(ii)(A or B) of the Flue 6 Stack. The test consisted of ten paired Method 30B Hg sampling runs. Each trap pair was sampled for a time frame of between 70-98 total hours. Note that due to the size of each trap set data file, the files are only included in the electronic copy of this test report. The hard copy report includes a separate CD which contains the minute data for each trap set. A standard F_c factor of 1,840 scf/mmBtu for sub-bituminous coal was utilized to calculate emissions on a lb/TBtu basis. Carbon dioxide (CO₂) data was taken from CEM hourly data and corrected from a wet basis to dry basis utilizing a default factor of 8%. Pounds per hour emissions were calculated using the wet concentration, the volumetric flow from the installed certified CEM flow monitor and 8760 hrs/yr of operation. Selected results of the test program are summarized below.

Parameter	Dates	LEE Demonstration	LEE Demonstration Requirement	Pass/Fail
Hg	7/19/16-8/22/16	0.387 lb/TBtu and 1.884 lb/yr	≤ 1.200 lb/TBtu and 29 lbs/yr	Pass

The test results from this test program indicate that the Presque Isle Power Plant Flue 6 Stack demonstrated the level to achieve Hg LEE status per 40CFR63, UUUUU Section 63.10005 (h)(1)(ii)(B).

The identifications of individuals associated with the test program are summarized below.

TEST PERSONNEL INFORMATION		
Location	Address	Contact
Test Coordinator	We Energies 333 West Everett Street Environmental Department A231 Milwaukee, Wisconsin 53203	Mr. Rob Bregger (414) 221-2772 (phone) rob.bregger@we-energies.com
Test Facility	We Energies Presque Isle Power Plant 2701 Lakeshore Boulevard, North Marquette, Michigan 49885	Ms. Brenda Bergemann (414) 221-2453 (phone) brenda.bergemann@we-energies.com
Testing Company Representative	Mostardi Platt 888 Industrial Drive Elmhurst, Illinois 60126	Mr. Pat Lyons Project Manager (630) 993-2100 (phone) plyons@mp-mail.com

2.0 TEST METHODOLOGY

Emission testing was conducted following the methods specified in 40 CFR, Part 60, Appendices A and B, USEPA Method 30B. A drawing depicting the sampling port and test point location is found in Appendix A of this test report, drawings depicting the sampling train is found in Appendix B of this test report, calculation and nomenclature explanations are found in Appendix C of this test report, sample analysis data are found in Appendix D of this test report, mercury sampling QA/QC data are found in Appendix E of this test report, reference method test data are found in Appendix F of this test report, CEMs data are found in Appendix G of this test report, and field data sheets are found in Appendix H of this test report.

The following methodology was used during the test program:

Mercury Determination by Method 30B (Sorbent Trap Method)

Paired trains were utilized sampling one test point at the Flue 6 Stack test location.

Per Method 30B sampling, each sample was collected on the paired in-situ sorbent traps. A tube of silica was used to capture remaining moisture prior to the sample reaching the gas metering system. Expected concentrations for the test runs were calculated based on previous Method 30B test data to total approximately 1500 ng of Hg collected on each trap during sampling.

The sample train used for this test program was designed by APEX, Inc. and meets all requirements for Method 30B sampling. Each sample was extracted at one sample point, within 10% of the centroid of the stack.

The mercury traps were analyzed offsite utilizing an Ohio Lumex analyzer. A complete summary of emission test results follows the narrative portion of this report.

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3.0 TEST RESULTS SUMMARY

Method 30B (Sorbent Trap) Mercury Test Results Summary
 We Energies
 Presque Isle Power Plant
 Flue 6 Stack

Test No.	Boiler Operating Days	Total Hours Sampled	Date	Start Time	End Time	V _m (standard L)	ng detected	ug/dscm	lb/yr	lb/Tbtu (Fc Factor)	MATS Limit	
1A	4	73	7/19-22/2016	9:14	9:08	1,080.854	599.2	0.554	2,399	0.476		
1B						1,096.974	612.5	0.558	2,416	0.480		
Average							605.9	0.556	2,407	0.478	1.2 lb/Tbtu and 29 lbs/yr	
2A	3	72	7/22-25/16	10:24	9:04	1,059.828	432.4	0.408	1,639	0.359		
2B						1,076.878	377.8	0.351	1,410	0.309		
Average							405.1	0.379	1,524	0.334	1.2 lb/Tbtu and 29 lbs/yr	
3A	3	70	7/25-28/16	9:31	7:00	1047.857	464.3	0.443	1,913	0.387		
3B						1067.113	618.3	0.579	2,501	0.506		
Average							541.3	0.511	2,207	0.447	1.2 lb/Tbtu and 29 lbs/yr	
4A	4	96	7/28-8/1/16	7:42	7:08	1450.748	616.7	0.425	1,705	0.368		
4B						1468.087	777.3	0.529	2,124	0.459		
Average							697.0	0.477	1,915	0.413	1.2 lb/Tbtu and 29 lbs/yr	
5A	3	71	8/1-8/4/16	7:30	6:30	1073.864	538.1	0.501	2,214	0.438		
5B						1085.504	584.0	0.538	2,377	0.470		
Average							561.1	0.520	2,295	0.454	1.2 lb/Tbtu and 29 lbs/yr	
6A	4	93	8/4-8/8/16	11:27	7:00	1467.959	728.2	0.496	2,141	0.448		
6B						1500.106	657.6	0.438	1,892	0.396		
Average							692.9	0.467	2,017	0.422	1.2 lb/Tbtu and 29 lbs/yr	
7A	3	72	8/8-8/11/16	7:18	7:13	1154.891	450.0	0.390	1,800	0.352		
7B						1180.497	626.0	0.530	2,450	0.479		
Average							538.0	0.480	2,125	0.415	1.2 lb/Tbtu and 29 lbs/yr	
8A	4	96	8/11-8/15/16	7:43	7:25	1539.350	588.0	0.382	1,622	0.331		
8B						1577.160	507.4	0.322	1,367	0.279		
Average							547.7	0.352	1,494	0.305	1.2 lb/Tbtu and 29 lbs/yr	
9A	3	72	8/15-8/18/16	7:46	7:08	1145.438	466.5	0.407	1,782	0.359		
9B						1172.064	480.8	0.410	1,795	0.361		
Average							473.7	0.409	1,788	0.360	1.2 lb/Tbtu and 29 lbs/yr	
10A	4	98	8/18-8/22/16	10:25	11:17	1561.770	479.7	0.307	1,293	0.273		
10B						1601.312	534.0	0.333	1,404	0.296		
Average							506.9	0.320	1,349	0.284	1.2 lb/Tbtu and 29 lbs/yr	
Total Operating Days	35	813	Overall Total Weighted Average						0.440	1.884	0.387	

4.0 CERTIFICATION

MOSTARDI PLATT is pleased to have been of service to We Energies. If you have any questions regarding this test report, please do not hesitate to contact us at 630-993-2100.

CERTIFICATION

As project manager, I hereby certify that this test report represents a true and accurate summary of emissions test results and the methodologies employed to obtain those results, and the test program was performed in accordance with the methods specified in this test report.

MOSTARDI PLATT



Pat Lyons

Program Manager



Scott W. Banach

Quality Assurance