

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : HOLLAND BOARD OF PUBLIC WORKS-Holland Energy Park	SRN : P0465
Location : 1 Energy Park Way	District : Grand Rapids
	County : OTTAWA
City : HOLLAND State: MI Zip Code : 49423	Compliance Status : Compliance
Source Class : MAJOR	Staff : Kaitlyn DeVries
FCE Begin Date : 4/7/2017	FCE Completion Date : 4/6/2018
Comments : FY 2018 FCE	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
04/06/2018	MAERS	Compliance	This is the first submittal for the facility. Stack test data was used appropriately for various pollutants including CO, NOx, and PM. CEMS data was also utilized. CE for the cooling towers was assumed to be 99.9%, which is acceptable. All detailed emissions are consistent with what was reported for the FY 2018 Inspection. No changes were made to the report. 4.6.2018. KDeVries.

Activity Date	Activity Type	Compliance Status	Comments
03/21/2018	Excess Emissions (CEM)	Compliance	<p>The 4th Quarter Excess Emissions Report was first received on 1/25/2018, but after review by AQD-TPU, a revised excess emission report was re-submitted and received on 2/8/18.</p> <p>Unit 10: The total operating time for this unit was 1498 hours. A total of 3.87% NOx CEMS downtime was reported and 4.27% CO CEMS downtime was reported. No excess emissions were noted for either pollutant.</p> <p>Unit 11: The total operating time for this unit was 1608 hours. 2.61% NOx CEMS monitor downtime and 4.66% CO CEMS downtime was reported. No excess emissions were reported.</p> <p>The reason for the modified report was due to corrections in the CEMS software and some miscalculations. The majority of the downtime was due to start-ups and shutdowns.</p> <p>In addition to the excess emission and downtime reports, the unit 10 and unit 11 linearity and cylinder gas audit (CGA) results were included in the report. The results were passing and no issues noted.</p>
03/15/2018	Scheduled Inspection	Compliance	The purpose of this inspection was to determine compliance with PTI No. 107-13F.
02/22/2018	ROP Tech Review Notes		ROP Technical Review notes for Initial ROP Issuance

Activity Date	Activity Type	Compliance Status	Comments
12/28/2017	NSPS (Part 60)	Compliance	<p>Revised Part 60 Quarterly Reports for 2nd & 3rd quarters were submitted by Holland Board of Public Works (HBPW). The revised report provides additional detail about the actions taken as a result of discovering emissions exceedances. HBPW reports that much of the exceedances were due to incorrectly calculating 24-hour rolling averages, and incorrectly reporting exceedance events instead of proper recording of additional downtime. Several adjustments have been made to the internal programming for calculations and ammonia injection. Additional investigation is being done by the CEMS vendor regarding the only remaining reported exceedances for CO at 2.4%, as HBPW does not believe them to be valid. AQD will continue to closely monitor the quarterly CEMS data.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/06/2017	Excess Emissions (CEM)	Compliance	<p>The 3rd Quarter Excess Emissions Report for units 10 and 11 was received on time and complete. The Quality Assurance Testing reports were also included in this report with the exception of the Unit 10 Linearity and Cylinder Gas Audits as they were conducted in the Part 75 grace period on 10/2/2017, and will be included in the Q4 reports.</p> <p>Unit 10: Total operating hours were 1355 hours. No excess emissions were reported for CO, and a total of 3.54% monitor downtime was reported. NOx records show a 9.67 (131.00 hours) of excess emissions, but a total of 1.33 hours of monitor downtime. After correcting to 15% O2, the excess emissions decreased to 0.15%.</p> <p>Unit 11: Total operating hours were 1121 hours. For CO, no excess emissions were reported, and a total of 1.25% monitor downtime as reported. A total of 0.63% monitor downtime was reported for NOx, with a total of 7.76% excess emissions.</p> <p>It is noted in the report that the excess emissions for NOX at 15% O2 were due to startup and shutdown events. The facility will continue to monitor these events in more detail. This is a relatively newly operational facility that is still working through issues. AQD will closely monitor these events as well and take action if necessary.</p>
09/22/2017	Other Non ROP	Compliance	EUFUELHTR notification of commencement of trial operation.
09/22/2017	Other Non ROP	Compliance	EUFENGINE notification of commencement of trial operation.
09/22/2017	Other Non ROP	Compliance	FGCTGHRSG Start Up / Shut Down Plan
09/22/2017	Other Non ROP	Compliance	EUCTGHRSG10 & EUCTGHRSG10 Net Heat Rate Performance Testing Protocol

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09/13/2017	Scheduled Inspection	Compliance	FY '17 on-site inspection to determine the facility's compliance status with PTI No. 107-13E and other applicable air quality rules and regulations.
09/11/2017	Other Non ROP	Compliance	Emissions Testing Protocol for FGCTGHRSG, AUXBOILER, NGENGINE and FUELHEATER; Testing Scheduled for week of April 5, 2017.
09/11/2017	Other Non ROP	Compliance	EUCOOLTWR Maintenance and Inspection Plan (MAP).
09/11/2017	NSPS (Part 60)	Compliance	AUXBOILER notification of commencement of trial operation.
09/11/2017	Other Non ROP	Compliance	EUCOOLTWR notification of trial operation.
09/11/2017	Other Non ROP	Compliance	FGCTGHRSG 10 & FGCTGHRSG 11 notification for commencement of trial operation.
08/01/2017	Excess Emissions (CEM)	Compliance	Excess Emissions & Monitoring System Summary Report for Units 10 & 11 received (7/31/2017) complete and properly certified. This report covers the time period of 1/1/2017-6/30/2017. NSPS 60.7 requires semi-annual reporting unless an alternative frequency is required. CR contacted Ms. Visscher and discussed the quarterly reporting frequency required by their permit. Ms. Visscher thought the reporting frequency was semi-annual based on the rule. Going forward reports will be submitted quarterly, as required by their permit. There were no excess emissions of NOx, CO or SO2 reported for either units. Unit 10 CEMS downtimes are as follows: 3.2% NOX, 0.26% CO and 0.82% SO2 with a total operating time of 387.88 hours. Unit 11 CEMS downtimes are as follows: 9.34% NOX, 9.87% CO and 0.00% SO2 with a total operating time of 259.87 hours. Due to construction, initial startup and testing, the facility did not begin recording data until May 2017 (Q2).
07/27/2017	Stack Test	Compliance	Emissions Compliance and Guarantee Test report, received in a timely manner (7/10/2017) and properly certified. No issues noted.

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07/27/2017	Stack Test	Compliance	Net Heat Rate Performance Test report, received in a timely manner (7/10/2017) and properly certified. The Facility Net Plant Electrical output did not meet the expected performance value listed in Section 1.4 of the Test Procedures. Therefore, facility used a more recent version of the Zachery heat balance (Oct. 26, 2016) which has an expected Facility Net Output of 121.776 MW, which they were able to meet.
07/24/2017	CEM RATA	Compliance	The CEMS Initial Certification report was received on time and complete (7/17/2017). The report includes CEMS testing results for NOx, CO and Oz for Units EUCTHRSG10 and EUCTHRSG11. The results indicate that the analyzers were within the EPA and DEQ requirements for all parameters.
06/30/2017	Telephone Notes		Telephone notes from 6/30/17 and 7/3/17
04/21/2017	Malfunction Abatement Plan	Compliance	MAP(s) for Units 10 and 11 (turbines); Emergency Generator; and Auxillary Boiler; as required by PTI # 107-13D. The stated purpose of the plans is to document proper operations and maintenance so as to Prevent, Detect and Abate malfunctions/abnormal conditions. (SLachance, 4/21/17)

Name: Kautilya Datta Date: 4/6/2018

Supervisor: 