

DEPARTMENT OF ENVIRONMENTAL QUALITY  
 AIR QUALITY DIVISION

FCE Summary Report

Facility : GLWA Water Resource Recovery Facility	SRN : B2103
Location : 9300 W. JEFFERSON AVE	District : Detroit
	County : WAYNE
City : DETROIT State: MI Zip Code : 48209	Compliance Status : Compliance
Source Class : MAJOR	Staff : Stephen Weis
FCE Begin Date : 7/12/2017	FCE Completion Date : 7/12/2018
Comments : FCE for FY2018.	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
07/12/2018	Scheduled Inspection	Compliance	Compliance inspection of the Great Lakes Water Authority's Water Resource Recovery Facility (WRRF). The WRRF facility is scheduled for inspection in FY 2018.
06/01/2018	Complaint Investigation	Compliance	Odor complaint.
04/23/2018	Other	Compliance	Review of RY2017 MAERS submittal.
03/29/2018	Stack Test Observation	Compliance	Review of stack test report.
03/28/2018	ROP Annual Cert	Compliance	This report includes the total deviations for both semi-annual periods of 2017.

03/28/2018	ROP SEMI 2 CERT	Compliance	<p>The Great Lakes Water Authority (GLWA) submitted the ROP Certification Report for the second semi-annual period of 2017, which addresses the timeframe between July 1 and December 31, 2017. GLWA reported 86 deviations that occurred during the semi-annual period; these reported deviations consisted of three different types of reported issues.</p> <p>The first type of deviation relates to temporary bypasses of the scrubber on an operating incinerator. GLWA reported that the SSIs temporarily bypassed the main stack and associated pollution control equipment on 57 occasions during the semi-annual period from July 1 through December 31. As part of the description of the deviation, GLWA provides that this type of deviation resulted "...in an emission standards deviation for pollutants listed in I.1 through I.10". The longest of these deviations occurred on October 28, lasting for 55 minutes. There were 3 additional periods of temporary bypass on October 28th, all related to a fault involving an induced draft fan, and the SSI was taken out of service. 36 of the reported deviations of this type lasted for less than 10 minutes, and 22 deviations of this type lasted for 5 minutes or less. The SSI system is operated and programmed such that when the bypass stack opens, the sludge/biosolids feed to the SSI shuts down. The sludge/biosolids material that is already in the SSIs will continue to burn in the combustion chamber, so emissions continue to be generated, with emissions from some of the pollutants generated by the SSIs now uncontrolled. GLWA reported several of these deviations to DEQ-AQD as they were occurring.</p> <p>The second type of deviation involves opacity of greater than 20% from an operating incinerator/SSI. There were 26 reported deviations of this type during the semi-annual period. 22</p>
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03/28/2018	ROP SEMI 2 CERT	Compliance	<p>of the deviations were reported as lasting for a single 6 minute block, and the remained for 12 minutes (or two 6 minutes blocks). The deviation report includes the purported cause and the corrective actions taken, and according to the information in the deviation report, each incident appears to have been promptly addressed by facility staff. The exception occurred on July 9, for which the cause is written as being unknown. Four of the reported deviations of this type were reported as occurring on August 16, and another on August 17, from issues related to hearth temperature swings. The issues for all of this type of deviation seem to have been addressed by the facility relatively quickly.</p> <p>The remaining three deviations reported for this semi-annual relate to instances during which the 12-hour block average of certain SSI and air pollution control equipment operating parameters exceeded established limits during the operation of SSIs. Subpart M MMM requires that operating parameters for daily sludge feed rate, hearth 1 afterburner temperature, total scrubber differential pressure, total scrubber water flow and scrubber outlet water pH be established for the SSIs during compliance emissions testing required by Subpart M MMM. 40 CFR 60.5210 requires that the operating parameters be continuously monitored, and that the monitoring data be kept using the averaging time specified in Table 4 of Subpart M MMM. As put forth in 60.5210(d), the operating limits are established so as to ensure ongoing compliance with the emission limits put forth in Subpart M MMM.</p> <p>Due to character constraints in the MACES "Comments" field, further information is attached to this report.</p>
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02/22/2018	NSPS (Part 60)	Compliance	<p>The 40 CFR Subpart M M M M Semi-Annual Deviation report was submitted, in accordance with the requirements of 40 CFR 60.5235 (d). This report covers the second semi-annual period of 2017 (July 1 – December 31).</p> <p>GLWA reported 58 deviations of the requirements of Subpart M M M M that occurred during the semi-annual period. The facility reported 54 deviations relating to temporary bypasses of the scrubber on an operating Complex 2 sewage sludge incinerator (SSI). The SSIs temporarily bypassed the main stack and associated pollution control equipment during the semi-annual period on dates between July 12 and December 22. As part of the description of the deviation, GLWA provides that this type of deviation resulted "... emissions standards deviation for all pollutants listed in Table 3 to subpart M M M M". The longest of these deviations occurred on October 28, lasting for 55 minutes. There were 3 additional periods of temporary bypass on October 28th, all related to a fault involving an induced draft fan, and the SSI was taken out of service. 31 of the report deviations of this type lasted for 10 minutes or less, and 19 that lasted for 5 minutes or less. The SSI system is operated and programmed such that when the bypass stack opens, the sludge/biosolids feed to the SSI shuts down. The sludge/biosolids material that is already in the SSIs will continue to burn in the combustion chamber, so emissions continue to be generated, with emissions from some of the pollutants generated by the SSIs uncontrolled.</p> <p>The remaining four deviations reported for this semi-annual relate to instances during which the 12-hour block average of certain SSI and air pollution control equipment operating parameters exceeded established limits during the operation of SSIs. Subpart M M M M requires that operating parameters for daily sludge feed rate, hearth 1</p>
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02/22/2018	NSPS (Part 60)	Compliance	<p>afterburner temperature, total scrubber differential pressure, total scrubber water flow and scrubber outlet water pH be established for the SSIs during compliance emissions testing required by Subpart M MMM. 40 CFR 60.5210 requires that the operating parameters be continuously monitored, and that the monitoring data be kept using the averaging time specified in Table 4 of Subpart M MMM. As put forth in 60.5210(d), the operating limits are established so as to ensure ongoing compliance with the emission limits put forth in Subpart M MMM.</p> <p>GLWA reported instances during the semi-annual period during which the SSIs operated when the afterburner temperature, the differential pressure across the scrubber, the scrubber liquid flow rate, and the scrubber water pH were outside of their respective established, acceptable ranges. The reporting of deviations from the established operating parameters is required by 40 CFR 60.5235(d). The facility is required to report the deviations, and at this time, there is no direct correlation of the deviations to excess emissions from the SSIs. GLWA included data with their Subpart M MMM deviation report that provides the daily block averages for the four monitored parameters, and that shows the block averages that were outside of the established range (the exceedance is highlighted). This information is attached to the report. GLWA also tracks the daily data for these parameters, which is monitored continuously and recorded every 15 minutes. This information was provided to DEQ-AQD.</p>
02/01/2018	Stack Test Observation	Compliance	Review of stack test report.
01/31/2018	Other	Compliance	PEAS incident report summary.
01/23/2018	Stack Test Observation	Compliance	Review of stack test report.
12/21/2017	Stack Test Observation	Compliance	Review of stack test report.

Activity Date	Activity Type	Compliance Status	Comments
12/21/2017	Stack Test Observation	Compliance	Review of stack test report.

10/18/2017	ROP Semi 1 Cert	Compliance	<p>The reported deviations consisted of four different types of reported issues.</p> <p>The first type of deviation involves GLWA not submitting a complete report of results from a compliance emissions test within the required timelines. The testing was conducted in April and May of 2017. The test report was submitted to DEQ-AQD, and the testing demonstrated compliance with all permitted emission limits.</p> <p>The second type of deviation relates to temporary bypasses of the scrubber on an operating incinerator. The SSIs temporarily bypassed the main stack and associated pollution control equipment on 20 occasion during the semi-annual period from May 10 through June 27. As part of the description of the deviation, GLWA provides that this type of deviation resulted "...in an emission standards deviation for pollutants listed in I.1 through I.10". The longest of these deviations occurred on June 15, 21 and 23, lasting for 90 minutes. The other deviations of this type lasted for less than an hour, with four lasting for 5 minutes or less. The SSI system is operated and programmed such that when the bypass stack opens, the sludge/biosolids feed to the SSI shuts down. The sludge/biosolids material that is already in the SSIs will continue to burn in the combustion chamber, so emissions continue to be generated, with emissions from some of the pollutants generated by the SSIs now uncontrolled. GLWA reports the bypass events to DEQ-AQD via notifications after they occur.</p> <p>The next type of deviation reported involves opacity of greater than 20% from an operating incinerator/SSI. There were 12 reported deviations of this type during the semi-annual period. 11 of the deviations were reported as lasting for a single 6 minute block, and the remained for 12 minutes (or two 6 minutes</p>
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10/18/2017	ROP Semi 1 Cert	Compliance	<p>blocks). The deviation report includes the purported cause and the corrective actions taken, and according to the information in the deviation report, each incident appears to have been promptly addressed by facility staff.</p> <p>The remaining three deviations reported for this semi-annual period involve the MAP PM (malfunction abatement plan/preventative maintenance), specifically some of the tasks required by the MAP PM not being done. Specifically, in February 2017, the monthly weightometer PM was not completed; in January and April, the annual electrical inspection of a SFE (secondary final effluent) pump was not completed (one pump in each month); and in April and May, the SFE pump operator inspection – butterfly valve leakage was not performed in accordance with the MAP schedule, one pump for each month. GLWA reported that there were no reasons recorded as to why the requirement of the MAP was not completed. The facility reported that there were no observable issues relating to the MAP requirement deviations.</p>
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Activity Date	Activity Type	Compliance Status	Comments
10/18/2017	NSPS (Part 60)	Compliance	<p>40 CFR Part 60 Subpart Mmmm Initial Compliance Report, as required by 60.5235(b). The report was submitted with a report date of August 15, 2017.</p> <p>60.5235(b) requires that the Initial Compliance Report be submitted no later than 60 day following the initial performance test. The compliance emissions testing was completed on the Complex 2 SSIs from April to June 2017, and the complete report of test results was submitted to DEQ-AQD on August 10, 2017.</p> <p>60.5235(b) puts forth the required elements of the Initial Compliance Report. Elements specific to the GLWA facility that were included with the report are the complete test reports for the initial performance test results; values for the site-specific operating limits that were established during the performance tests, as specified in 60.5170 and 5175; and air pollution control equipment inspection records, as required by 60.5195.</p> <p>The content of the report seems to satisfy the requirements of 40 CFR Part 60, Subpart Mmmm, specifically 60.5235(b).</p>

10/12/2017	NSPS (Part 60)	Compliance	<p>The 40 CFR Subpart M MMM Semi-Annual Deviation report was submitted, in accordance with the requirements of 40 CFR 60.5235 (d). This report covers the first semi-annual period of 2017 (January 1 – June 30).</p> <p>Given the fire that took place in Complex 2 of the incineration building on March 4, 2016, the repairs to the incinerators in Complex 2 at the WWTP facility that are subject to Subpart M MMM were completed during this during this semi-annual period, and the Complex 2 incinerators recommenced operation.</p> <p>GLWA reported 14 deviations that occurred during the semi-annual period. The first reported deviation involves the operation of the Complex 1 incinerators after March 21, 2016, which is the effective date of Subpart M MMM, and also the date by which these incinerators were required to permanently shut down by the facility's permit. The Complex 1 incinerators were last used on January 4, 2017, and they were permanently decommissioned on June 1, 2017.</p> <p>The remaining 13 deviations relate to temporary bypasses of the scrubber on an operating Complex 2 sewage sludge incinerator (SSI). The SSIs temporarily bypassed the main stack and associated pollution control equipment during the semi-annual period on dates between May 10 and June 27. As part of the description of the deviation, GLWA provides that this type of deviation resulted "... emissions standards deviation for all pollutants listed in Table 3 to subpart M MMM". The longest of these deviations occurred on June 15 and 23, lasting for 90 minutes, with the note that this is the sludge incineration residence time. The other deviations of this type lasted for less than an hour, with four lasting for 5 minutes or less. The SSI system is operated and programmed such that when the bypass stack opens, the sludge/biosolids feed to the SSI</p>
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10/12/2017	NSPS (Part 60)	Compliance	shuts down. The sludge/biosolids material that is already in the SSIs will continue to burn in the combustion chamber, so emissions continue to be generated, with emissions from some of the pollutants generated by the SSIs now uncontrolled. GLWA previously reported several of these deviations to DEQ-AQD right after they occurred.
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Name: Steve Allen Date: 4/25/19 Supervisor: JK