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GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DETROIT



KEITH CREAGH  
DIRECTOR

June 21, 2016

Ms. Wendy Barrott, General Manager  
Great Lakes Water Authority  
Wastewater Treatment Plant  
9300 West Jefferson Avenue, Suite 103  
Detroit, MI 48209

SRN: B2103, Wayne County

Dear Ms. Barrott:

**VIOLATION NOTICE**

On March 4, 2016, the Department of Environmental Quality, Air Quality Division (DEQ-AQD) received notification from the Great Lakes Water Authority (GLWA) that a section of the conveyors serving the Complex 2 incinerators at the Wastewater Treatment Plant (WWTP) facility had caught fire that morning. Subsequent written communications from GLWA have provided details as to the extent of the damage caused by the fire; a preliminary corrective action plan that includes an emergency operations plan; and status updates regarding the repair and facility operation recovery efforts. DEQ-AQD staff have been evaluating the information received from GLWA regarding the fire and the resulting repair and recovery efforts, specifically the potential impacts of the current status and operations at the WWTP facility in relation to the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules, including R 336.1972 (hereafter also Rule 972); and the conditions of Renewable Operating Permit (ROP) No. MI-ROP-B2103-2014c.

The DEQ-AQD has determined that the following regulatory requirements are not currently being met at the three ash conveying and storage systems servicing the Complex 1 incinerators (named EUC1ASH01, EUC1ASH02, and EUC1ASH03 and located within the flexible group FGC1ASH of MI-ROP-B2103-2014c); the special conditions (SC) noted below refer to SCs within FGC1ASH:

Rule/Permit Condition Violated	Comments
SC V.1; R 336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5185(a) – Emissions tests to demonstrate initial compliance with applicable emission limits and standards for fugitive dust from the ash handling operations were not performed.
SC VI.2; R 336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5200 – A site-specific monitoring plan for the Complex 1 ash handling system was not submitted.

The DEQ-AQD has determined that the following regulatory requirements are not currently being met at the Complex 1 incinerators (named EUINC01, EUINC03, EUINC04, EUINC05, and EUINC06 and located within the flexible group FGCOMPLEX1 of MI-ROP-B2103-2014c); the SCs noted below refer to SCs within FGCOMPLEX1:

<b>Rule/Permit Condition Violated</b>	<b>Comments</b>
SCs IV.1, IX.3; R 336.1972(3)(d), (f)	Failure to comply with the provisions of 40 CFR 60.5195, 60.5220 – An air pollution control device inspection was not performed in accordance with the requirements of Subpart Mmmm, by the compliance date of Subpart Mmmm.
SCs IV.1, IX.3; R 336.1972(3)(c), (d)	Failure to comply with the provisions of 40 CFR 60.5165, 60.5185 – Emissions tests were not performed on the incinerators in FGCOMPLEX1 to demonstrate initial compliance with applicable emission limits and standards (60.5185(a)). In lieu of testing for certain pollutants, a continuous emission monitoring system was not installed to demonstrate initial compliance (60.5185(b)). Absent the test results, it is not demonstrated that the Complex 1 incinerators are meeting the emission limits associated with Subpart Mmmm at all times that the incinerators are operating, as required by 40 CFR 60.5165.
SC VI.1; R 336.1972(3)(c), (g)	Failure to comply with the provisions of 40 CFR 60.5170(f)(1), 60.5230 – The permittee did not monitor and record the sewage sludge feed rate to the Complex 1 incinerators on a continuous basis, and calculate the daily average sewage sludge feed rate to each incinerator for all hours of operation during each 24 hour period.
SC VI.2; R 336.1972(3)(c), (g)	Failure to comply with the provisions of 40 CFR 60.5170(f)(2), 60.5230 – The permittee did not monitor and record the moisture content of the sewage sludge on a daily basis for the purpose of recording the range of moisture content.
SC VI.3; R 336.1972(3)(c), (g)	Failure to comply with the provisions of 40 CFR 60.5170(a), 60.5230 – The permittee did not monitor and record the combustion chamber temperature for each incinerator in Complex 1 on a continuous basis.
SC VI.4; R 336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5190 – The permittee did not establish a minimum combustion chamber operating temperature (or minimum afterburner temperature), equal to the lowest 4-hour average combustion chamber temperature (or afterburner temperature) measured during the most recent performance test demonstrating compliance with all applicable emission limits.
SC VI.5;	Failure to comply with the provisions of 40 CFR 60.5200 – The permittee did not develop and submit a site-specific monitoring

R 336.1972(3)(d)	plan for each continuous monitoring system required by Subpart MMMM.
SC VI.8; R 336.1972(3)(d), (g)	Failure to comply with the provisions of 40 CFR 60.5190, 60.5230 – The permittee did not monitor and record, on a continuous basis, the pressure drop across the inlet and outlet of the scrubber serving any incinerator in Complex 1 that is in operation. These measurements are to be recorded every 15 minutes.
SC VI.9; R 336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5190 – The permittee did not establish a minimum pressure drop across each wet scrubber that is used to meet the particulate matter, lead and cadmium emission limits, equal to the lowest 4-hour average pressure drop across each scrubber measured during the most recent performance test demonstrating compliance with the particulate matter, lead and cadmium emission limits.
SC VI.10; R 336.1972(3)(d), (g)	Failure to comply with the provisions of 40 CFR 60.5190, 60.5230 – The permittee did not monitor and record, on a continuous basis, the liquid flow rate through the scrubber serving any incinerator in Complex 1 that is in operation. These measurements are to be recorded every 15 minutes.
SC VI.11; R 336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5190 – The permittee did not establish a minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber) equal to the lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.
SC VI.12; R 336.1972(3)(d), (g)	Failure to comply with the provisions of 40 CFR 60.5190, 60.5230 – The permittee did not monitor and record, on a continuous basis, the scrubber liquid pH. These measurements are to be recorded every 15 minutes.
SC VI.13; R 336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5190 – The permittee did not establish a minimum liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen chloride emission limits equal to the lowest 1-hour average scrubber liquid pH measured during the most recent performance test demonstrating compliance with these emission limits.
SC IX.2; R 336.1972(3)(b)	Failure to comply with the provisions of 40 CFR 60.5130, 60.5135, 60.5140, 60.5145, 60.5150, 60.5155 and 60.5160 – The permittee did not implement and comply with the Operator Training and Qualification provisions specific in 40 CFR 60.5130 through 60.5160.

The five Complex 1 incinerators are also included within the flexible group FGDryIncTrans of MI-ROP-B2103-2014c. The DEQ-AQD has determined that the following regulatory requirement of FGDryIncTrans has not been met:

Rule/Permit Condition Violated	Comments
SC IX.1	Incinerators 1 (EUINC01), 3 (EUINC03), 4 (EUINC04), 5 (EUINC05) and 6 (EUINC06) did not permanently cease operating on March 20, 2016.

The sewage sludge incineration (SSI) units at the WWTP are subject to AQD Administrative Rule 972, effective January 15, 2016, which represents Michigan's Sewage Sludge Incinerators State Plan (hereafter SSI State Plan). Pursuant to Rule 972(3), each operating SSI unit must have been in compliance with the provisions of the "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units," 40 CFR Part 60, Subpart M, adopted by reference in R 336.1902, not later than March 21, 2016.

In order to achieve compliance with the requirements of Rule 972, the following upgrades and changes were made at the WWTP facility:

- Upgrading the Complex 2 incinerators, which consist of Incinerators 7 through 14. The upgrades, referred to as "air quality control improvements", involved modifying some of the hearths, air ports and burners in these eight incinerators to achieve improved combustion and emissions control, and upgrading the scrubber systems on each of these incinerators.
- Constructing and operating a Biosolids Drying Facility (BDF). This facility is located across West Jefferson from the WWTP, and operates as part of the same, single stationary source. The BDF consists of four biosolids dryer trains.
- The planned retirement of the Complex 1 incinerators, which currently consist of Incinerators 1, 3, 4, 5 and 6 (Incinerator 2 was previously shut down and decommissioned).

These upgrades were evaluated by DEQ-AQD during the reviews of Permit to Install (PTI) applications, the result of which was the issuance of PTI Nos. 61-13 and 61-13A to the Detroit Water and Sewerage Department (whose responsibilities in relation to the WWTP have since been transferred to the GLWA). The terms and conditions of these PTIs have been incorporated into the current ROP for the WWTP stationary source (ROP No. MI-ROP-B2103-2014c).

GLWA did not intend to operate the Complex 1 incinerators after March 21, 2016. Accordingly, these incinerators were not changed or upgraded to meet the emission standards associated with Rule 972, and other requirements associated with the SSI State Plan that needed to be completed prior to the compliance date were not met. Operating the Complex 1 incinerators and their associated ash systems after the

compliance date is a violation of various provisions of Rule 972, as identified in the tables above within this Violation Notice.

During the PTI reviews, the emissions associated with the proposed upgrades and changes at the facility were evaluated against the New Source Review (NSR) regulations contained within the AQD's Part 18 and Part 19 administrative rules.

The mechanisms that allowed the upgrades and changes to "net out" of NSR, once final, are incorporated and enforceable by Special Conditions in the ROP's flexible groups at FGAQCI (covering the Complex 2 incinerators after the air quality control improvements have been completed), FGDryerTrains & FGDryerFacility (covering the BDF), and FG2013Project (covering both the upgraded Complex 2 incinerators and the BDF).

The mechanisms that allowed the upgrades and changes to "net out" of NSR while transitioning away from the existing Complex 1 and 2 incinerators through to the upgraded Complex 2 incinerators and an operational BDF are incorporated and enforceable by Special Conditions in the ROP's FGDryIncTrans (covering Complex 1, Complex 2, and the BDF), and include the following:

- SC II.1, which restricts the individual sludge feeds to the Complex 1 incinerators, the Complex 2 incinerators, and the BDF to aggregate to not more than 157,000 dry tons per 12-month rolling time period.
- SC IX.1, which states "No later than March 20, 2016, the permittee shall permanently cease operating EUINC01, EUINC03, EUINC04, EUINC05, and EUINC06. When all five of these incinerators have permanently ceased operating, the conditions in this flexible group shall cease to be applicable requirements for the equipment in FGDryIncTrans."

As the Complex 1 incinerators (EUINC01, EUINC03, EUINC04, EUINC05, EUINC06) did not permanently cease operating on March 20, 2016, the WWTP stationary source stands in violation of SC IX.1 of FGDryIncTrans within MI-ROP-B2103-2014c. Further, as a result of the failure to cease operation of the Complex 1 incinerators at the WWTP, the SCs within the flexible group FGDryIncTrans remain enforceable applicable requirements within MI-ROP-B2103-2014c.

In addition, please note that only the Complex 2 incinerators are named within FGAQCI and FG2013Project. As the Complex 1 incinerators are not included within either flexible group, the SCs within FGAQCI and FG2013Project do not act as enforceable restrictions on the potential to emit regulated NSR pollutants from these incinerators.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by July 12, 2016 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates that

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the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If the GLWA believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above. Should you require any further information regarding this matter, please contact me at the number listed below.

Sincerely,



Stephen Weis  
Senior Environmental Engineer  
Air Quality Division  
313-456-4688

cc: Mr. Raymond Scott, City of Detroit, BSEED  
Ms. LaReina Wheeler, City of Detroit, BSEED  
cc/via email: Ms. Lynn Fiedler, DEQ  
Ms. Teresa Seidel, DEQ  
Ms. Heidi Hollenbach, DEQ  
Mr. Thomas Hess, DEQ  
Ms. Annette Switzer, DEQ  
Ms. Wilhemina McLemore, DEQ  
Mr. Jeff Korniski, DEQ  
Ms. Jodi Peace, DEQ