



July 6, 2016

Mr. Jeffery Korniski
 Michigan Department of Environmental Quality
 Cadillac Place, Suite 2-300
 3058 West Grand Boulevard
 Detroit, Michigan 48202

RE: June 21, 2016 Violation Notice Concerning Complex 1 Incineration

Dear Mr. Korniski:

The Great Lakes Water Authority (GLWA) received the Violation Notice (VN) dated June 21, 2016 regarding the continued use of Complex I incineration due to the fire in Complex II which occurred on March 4, 2016. As recognized in the VN, GLWA has been diligent in keeping MDEQ notified regarding the status of the fire remediation, and will continue to do so. As GLWA has stated before, GLWA was prepared to retire Complex I units in a timely manner consistent with the Subpart M regulation and remains committed to doing so as soon as the fire recovery process permits.

In the NV, MDEQ stated that GLWA did not meet several regulatory and Renewable Operating Permit (ROP) requirements. In the following paragraphs, GLWA has added a response to each of the cited rule/permit conditions.

FGCIASH: Three ash conveying and storage systems servicing Complex I incinerators

Rule/Permit Condition Violated	Comments	GLWA Comments
SC V.1; R336.1972(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.	40CFR60.5185(a) requires testing per Table 3. Table 3 fugitive dust from ash handling requires 3-1 hour observation periods using Method 22 of appendix A-7. The initial 3- 1 hour observation period was conducted in 2003.
SC VI.2; R336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5200 – A site- specific monitoring	A site – specific plan for Complex II was submitted 02/10/15. GLWA is following



	plan for the Complex I ash handling system was not submitted.	is the existing fugitive plan for Complex I which is substantially the same as the approved plan for Complex II.
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FGCOMPLEXI: Five Sewage Sludge Incinerators

Rule/Permit Condition Violated	Comments	GLWA Comments
SCs IV.1, IX.3; R336.1972(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.	Quarterly inspections of each scrubber system are being done. All completed work is recorded in the Work Asset Management System (WAM).
SCs IV.1, IX.3; R336.1972(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 FGCOMPLEX I 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 I 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.	Complex I was to be shut down and these required tests had been performed on 4 of the Complex II SSI units in preparation for the effective date of the MACT rules.
SC VI.1; R336.1972(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 I 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	There are weightometers on each incinerator to record the amount of sludge being fed to it. Feed rate for each incinerator is recorded and can be easily viewed on both SCADA and Ovation work stations throughout each 24 hour period of operation.

	period.	
SC VI.2; R336.1972(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.	Moisture content of the sludge fed to Complex I incinerators in service have been measured and recorded on an 8 hour shift basis for each shift where the units were fed sludge.
SC VI.3; R336.1972(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 I on a continuous basis.	Combustion chamber temperature is monitored on a daily basis for each incinerator in Complex I. This parameter can be easily viewed on both SCADA and Ovation work stations throughout each day of operation. First hearth temperatures are maintained between 1100 and 1500 deg. Fahrenheit as specified in FGCOMPLEX1 SC III.2 of the ROP. Operators monitored this parameter to control combustion during the periods of time the Complex I incinerators were fed sludge.
SC VI.4; R336.1972(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	Unplanned continuation of operation of Complex I due to the fire in Complex II.
SC VI.5; R336.1972(3)(d)	Failure to comply with the provisions of 40 CFR 60.5200 - The permittee did not develop and submit a site-specific monitoring plan for each continuous monitoring system required by Subpart Mmmm	Submitted ash handling operating procedures required for 60.5200(d). Complex I & II do have COMs and THC CEMs have been maintained per regulatory requirements and tracked in WAM. No other continuous emissions monitors are required.

<p>SC VI.8; R336.1972(3)(d), (g)</p>	<p>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 I that is in operation. These measurements are to be recorded every 15 minutes.</p>	<p>The pressure drop across the scrubber has been monitored and recorded on a continuous basis for each incinerator in Complex I. A minimum pressure drop of 18 inches of water column has been maintained as specified in FGCOMPLEX1 SC III.3 of the ROP. This parameter can be easily viewed on both SCADA and Ovation work stations throughout each day of operation. Operators monitored this parameter to control operation during the periods of time the Complex I incinerators were fed sludge.</p>
<p>SC VI.9; R336.1972(3)(d)</p>	<p>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.</p>	<p>Unplanned continuation of operation of Complex I due to the fire in Complex II.</p>
<p>SC VI.10; R336.1972(3)(d), (g)</p>	<p>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 I that is in operation. These measurements are to be recorded every 15 minutes.</p>	<p>The scrubber liquid flow is recorded and can be viewed and monitored on SCADA work stations.</p>
<p>SC VI.11; R336.1972(3)(d)</p>	<p>Failure to comply with the provisions of 40 CFR 60.5190 - The permittee did not establish a minimum scrubber liquid</p>	<p>Unplanned continuation of operation of Complex I due to the fire in Complex II.</p>

	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; R336.1972(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	The Complex I scrubber system is a once through system. Complex II scrubbers were supplied pH monitors and will be in-service upon return of units to service.
SC VI.13; R336.1972(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.	Unplanned continuation of operation of Complex I due to the fire in Complex II.
SCIX.2; R336.1972(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.	GLWA has fulfilled all obligations under the stated training provisions. MACT certified operators are available as required by the rules and operators currently operating Complex I have either taken, passed or have taken the MACT class. MACT training is available on-line at any time and all incineration plant technicians have had access to the online, class training and/or paper documents. As of Jan. 8, 2016, 22 operators have attended class room sessions and 6 have passed the exam.



FGDryIncTrans

Rule/Permit Condition Violated	Comments	GLWA Comments
SC IX.1	Incinerators 1 (EUINC01), 3 (EUINC03), 4 (EUINC04), 5(EUINCOS) and 6 (EUINC06) did not permanently cease operating on March 20, 2016.	See body of letter for response.

GLWA has approached this unfortunate situation with the overarching goal of making decisions on operations that are most protective of the environment. Our decisions have included maximizing the use of the Biosolids dryer, maximizing use of landfill capacity, in the event solids inventory is too high then to begin feeding sludge to Complex I incineration which has been on hot standby and lastly, to store stabilized sludge on site to remove the solids necessary from the plant to prevent the recycling of solids to the head of the plant. This has included operating Complex I to the best of its ability by performing PMs, instrument calibrations, inspections, monitoring and recording operating parameters and staffing with qualified operators.

The table below illustrates how the sludge inventory has been handled from March 1st through June 30th. The charts show a decrease of sludge going to the Complex 1 incinerators, and an increased amount of sludge going to the Biosolids Drying Facility and to the landfill. Our plan is to maximize the use of the Biosolids Drying Facility to its capacity and maximize landfilling to the capacity made available from the landfills. GLWA has worked with landfills and has been able to secure an additional capacity of 100 dry tons per day bringing the total daily (M-F) to 500 dry tons. Attachment A is a detailed record of sludge disposal from March 1 through June 30th.

	March 2016	April 2016	May 2016	June 2016
Complex I Incineration	2184.50	2010.05	1673.2	1430.7
Complex II Incineration	249.30	0	0	0
Biosolids Drying Facility	6892.7	5483.1	5679.9	4929.0
Landfilling of lime stabilized sludge	2166.9	2679.9	4476.0	3190.6



Work is currently being done to return Complex 2 back to service as soon as possible. Attachment B is the most recent Complex 2 Fire Remediation schedule. GLWA is currently anticipating that incinerators 7, 9, 11 and 13 will be fully online by November 2016. The schedule may be pushed back if any unforeseen circumstances arise. The remaining incinerators, 8, 10, 12 and 14 are expected to return to service December. The Complex 1 incinerators will be permanently taken out of service as soon as the first four incinerators in Complex 2 are in service. Emissions testing for all eight incinerators in Complex 2 is scheduled to be completed by late November.

As emphasized in earlier communications, GLWA was prepared to retire the Complex I units consistent with the regulations and remains committed to retiring these units as soon as the fire recovery process permits. GLWA believes this decision is overall in the best interest of the citizens and the environment.

If you have questions or comments regarding this correspondence, please contact my office at (313) 297-0300 or Melvin Dacres at (313) 297-0363.

Sincerely,

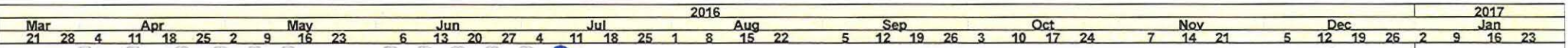
For *Majid Khan*
7/12/2016

Wendy Barrott, Manager
GLWA – Wastewater Treatment Plant

WB/MD/md

Attachments

Cc: Sue McCormick	William Wolfson
Suzanne R. Coffey	Majid Khan
Sanjeev Mungarwadi	Philip Kora
Melvin Dacres	Raymond Scott, City of Detroit, BSEED
Wilhemina McLemore, DEQ	LaReina Wheeler, City of Detroit, BSEED
Stephen Weis, DEQ	Lynn Fiedler, DEQ
Teresa Seidel, DEQ	Heidi Hollenback, DEQ
Thomas Hess, DEQ	Annette Switzer, DEQ



**GLWA WWTP Complex II March 2016 Fire Remediation
 Schedule Update 8 Jul 16**

**Working Draft - South to North Sequence
 (No Owner's Float Included)**

Durations in calendar days
 Red Outline = Critical Path

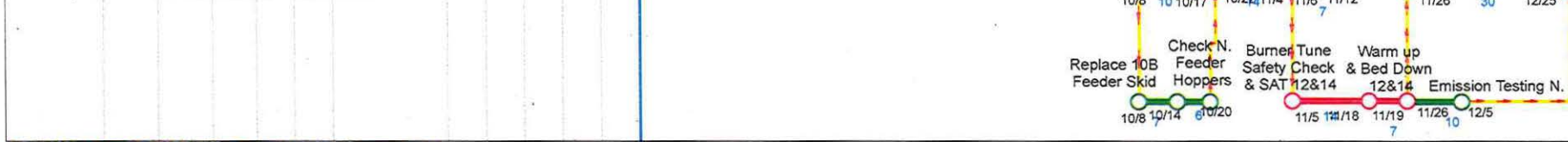
Complex II Incineration - S. Side



Complex II Incineration - General



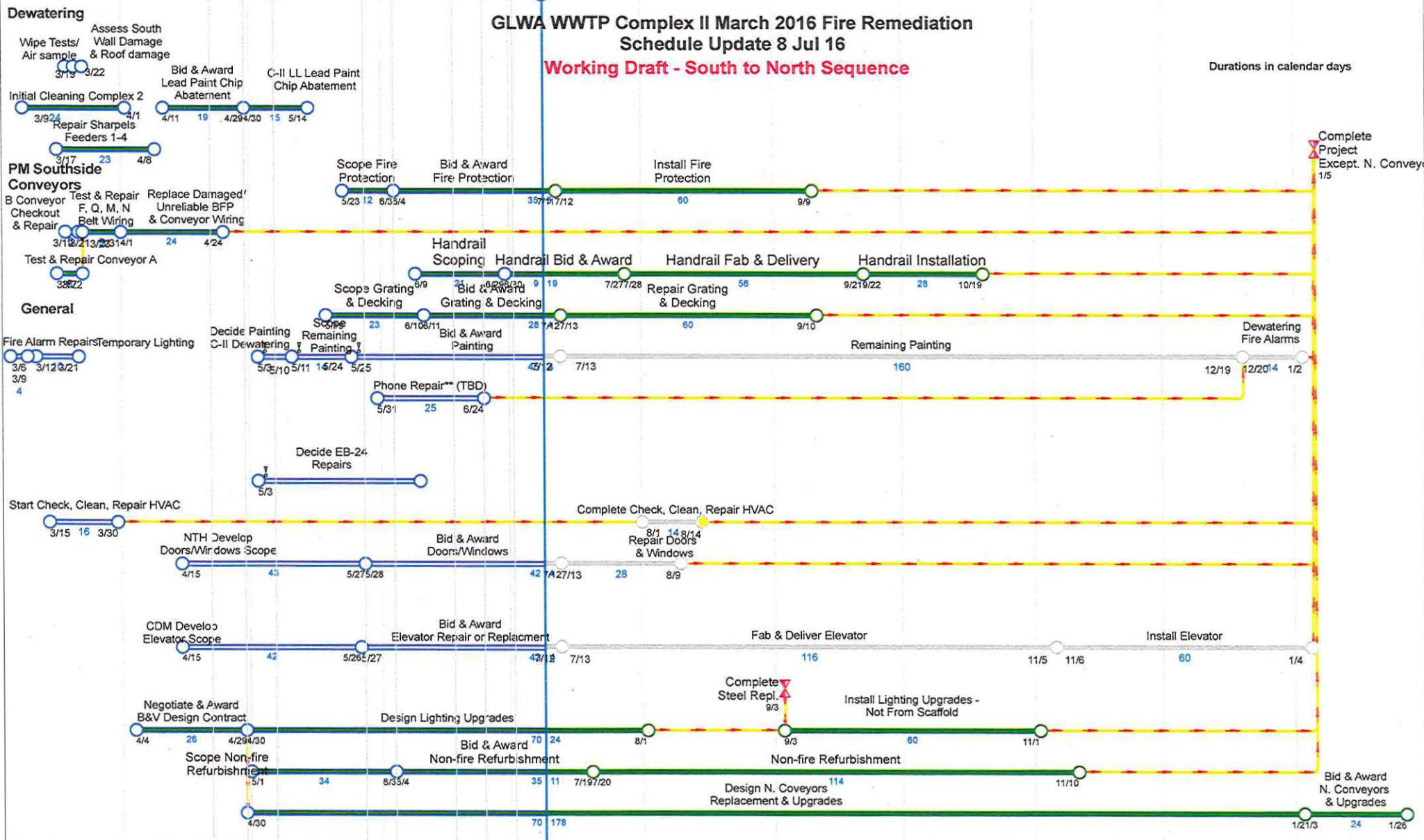
Complex II Incineration - N. Side



GLWA WWTP Complex II March 2016 Fire Remediation Schedule Update 8 Jul 16

Working Draft - South to North Sequence

Durations in calendar days



SLUDGE INVENTORY (March to June 2016)

Incineration

COMPLEX 1						COMPLEX 2							
DATE	INC. #1	INC. #3	INC. #4	INC. #5	INC. #6	INC. #7	INC. #8	INC. #9	INC. #10	INC. #11	INC. #12	INC. #13	INC. #14
6/13/2016	26.65	26.65	13.60	0	3.89	0	0	0	0	0	0	0	0
6/14/2016	19.17	28.46	22.47	0	0.90	0	0	0	0	0	0	0	0
6/15/2016	18.50	17.50	17.30	0	0	0	0	0	0	0	0	0	0
6/16/2016	6.87	5.62	5.62	0	0	0	0	0	0	0	0	0	0
6/17/2016	8.15	25.35	26.86	17.50	6.94	0	0	0	0	0	0	0	0
6/18/2016	0	40.62	33.85	36.39	35.54	0	0	0	0	0	0	0	0
6/19/2016	0	27.67	29.52	29.52	28.59	0	0	0	0	0	0	0	0
6/20/2016	0	27.97	22.73	27.97	19.72	0	0	0	0	0	0	0	0
6/21/2016	0	26.08	26.36	8.79	0.27	0	0	0	0	0	0	0	0
6/22/2016	0	9.26	8.59	6.55	0	0	0	0	0	0	0	0	0
6/23/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/24/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/25/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/26/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/27/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/28/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/29/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
6/30/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	272.4	459.8	407.5	126.7	164.3	0	0	0	0	0	0	0	0

All figures are in dry tons.