

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

**FCE Summary Report**

<b>Facility :</b> ORCHARD HILL SANITARY LANDFILL	<b>SRN :</b> N5719
<b>Location :</b> 3290 HENNESEY RD	<b>District :</b> Kalamazoo
	<b>County :</b> BERRIEN
<b>City :</b> WATERVLIET <b>State:</b> MI <b>Zip Code :</b> 49098	<b>Compliance Status :</b> Compliance
<b>Source Class :</b> MAJOR	<b>Staff :</b> Matthew Deskins
<b>FCE Begin Date :</b> 7/24/2018	<b>FCE Completion Date :</b> 7/24/2019
<b>Comments :</b>	

**List of Partial Compliance Evaluations :**

Activity Date	Activity Type	Compliance Status	Comments
07/24/2019	Scheduled Inspection	Compliance	Unannounced Scheduled Inspection
05/15/2019	MAERS	Compliance	
04/02/2019	ROP Annual Cert	Compliance	The facility reported a deviation for exceeding the allowable 12-month rolling throughput of landfill gas (lfg) in the internal combustion engines for two months of the year (October 1, 2018 through November 30, 2018). The exceeded the limit by approximately 1 million scf in October and by approximately 2 million scf in November. However, the facility took immediate steps to remedy the situation when it was detected and they will be adding a third engine this spring which will allow them to process all lfg without exceeding the limit. This is the first time they ever reported exceedences so staff will not find them to be in violation unless it should become an reoccurring issue in the future.

Activity Date	Activity Type	Compliance Status	Comments
04/02/2019	ROP SEMI 2 CERT	Compliance	The facility reported a deviation for exceeding the allowable 12-month rolling throughput of landfill gas (lfg) in the internal combustion engines for two months of the year (October 1, 2018 through November 30, 2018). The exceeded the limit by approximately 1 million scf in October and by approximately 2 million scf in November. However, the facility took immediate steps to remedy the situation when it was detected and they will be adding a third engine this spring which will allow them to process all lfg without exceeding the limit. This is the first time they ever reported exceedences so staff will not find them to be in violation unless it should become an reoccurring issue in the future.
04/02/2019	MACT (Part 63)	Compliance	Annual NESHAP ZZZZ Report - The company certified that they were in compliance with all it's applicable requirements. For a copy of the report refer to the ROP Certification file.
04/02/2019	ROP Annual Cert	Compliance	The facility certified that no deviations occurred during the reporting period.
04/02/2019	ROP SEMI 2 CERT	Compliance	The facility certified that no deviations occurred during the reporting period.
04/02/2019	NSPS (Part 60)	Compliance	Semi-Annual NSPS/GCCS Report. Staff did not note any issues during review of the report and please refer to the ROP Certification File for a copy of it.
04/02/2019	NSPS (Part 60)	Compliance	Although they don't specifically mention it as such in their submittal, this NSPS/Landfill Gas Treatment Report report is included as part of their semi-annual and annual ROP certification and relates to operation of their gas treatment system. This report has a few things that need to be reported if necessary but it typically just lists the downtimes of the control system greater than one hour. Please see the semi-annual/annual ROP certifications for comments as well as that file for a copy of the report.

Activity Date	Activity Type	Compliance Status	Comments
04/02/2019	MACT (Part 63)	Compliance	Semi-Annual SSM Report. The facility reported that 3 start-ups, 3 shutdowns, and 0 malfunctions occurred during the reporting period for the GCCS or open flare. They stated that no plan revisions had to be made due to actions taken during an SSM event being consistent with the SSM Plan and there were no exceedences of any applicable emission limits. For a copy of the report refer to the ROP Certification File.
04/01/2019	MACT (Part 63)	Compliance	Semi-Annual SSM Report. The facility reported that 8 start-ups, 5 shutdowns, and 3 malfunctions occurred during the reporting period but none caused an exceedance of any applicable emission limit. They stated that no plan revisions had to be made due to actions taken during an SSM event being consistent with the SSM Plan.
03/12/2019	Stack Test	Compliance	Annual Stack testing of the engines for NOx, CO, and VOCs as required by the NSPS JJJJ. The report indicated compliance with the applicable emission limits.
09/21/2018	ROP Semi 1 Cert	Compliance	The facility certified that no deviations occurred during the reporting period.
09/21/2018	MACT (Part 63)	Compliance	Semi-Annual SSM Report. The facility reported that 7 start-ups, 7 shutdowns, and 0 malfunctions occurred during the reporting period for the GCCS or open flare. They stated that no plan revisions had to be made due to actions taken during an SSM event being consistent with the SSM Plan and there were no exceedences of any applicable emission limits. For a copy of the report refer to the ROP Certification File.
09/21/2018	ROP Semi 1 Cert	Compliance	The facility certified that no deviations occurred during the reporting period.

Activity Date	Activity Type	Compliance Status	Comments
09/21/2018	MACT (Part 63)	Compliance	Semi-Annual SSM Report. The facility reported that 7 start-ups, 7 shutdowns, and 0 malfunctions occurred during the reporting period but none caused an exceedance of any applicable emission limit. They stated that no plan revisions had to be made due to actions taken during an SSM event being consistent with the SSM Plan.
09/21/2018	NSPS (Part 60)	Compliance	Semi-Annual NSPS/GCCS Report. See comments made under ROP Semi-Annual/Annual Certification and for a copy of the report refer to the ROP Certification File.
09/21/2018	NSPS (Part 60)	Compliance	Although they don't specifically mention it in their submittal, this NSPS report is included as part of their semi-annual and annual ROP certification and relates to operation of their treatment system. This report has a few things that need to be reported if necessary but it typically just lists the downtimes of the control system greater than one hour. In the past, staff hasn't specifically added this report as a report received but will do so from now on. Please see the semi-annual/annual ROP certifications for comments as well as that file for a copy of the report.

Name: Matt Deak

Date: 8-1-19

Supervisor: RIL 8/1/19

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N571949736

FACILITY: ORCHARD HILL SANITARY LANDFILL		SRN / ID: N5719
LOCATION: 3290 HENNESEY RD, WATERVLIET		DISTRICT: Kalamazoo
CITY: WATERVLIET		COUNTY: BERRIEN
CONTACT: Chip Shaw ,		ACTIVITY DATE: 07/24/2019
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On July 24, 2019 AQD staff (Matt Deskins) went to conduct a scheduled unannounced inspection of the Orchard Hill Sanitary Landfill (OHSL) located in Watervliet, Berrien County. OHSL is a licensed Type II municipal solid waste (MSW) landfill and became subject to the federal New Source Performance Standard (NSPS), 40 CFR Part 60 Subpart WWW, on November 8, 2010 due to a previous agreement with AQD (See previous inspection reports and correspondence for information related to this). They previously were not subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63 Subpart AAAA for MSW Landfills because they had been doing Tier 2 testing (done every 5 years) prior to the promulgation of this regulation showing that their NMOC emissions were below 50 Mg/yr. However, in 2012, OHSL signed an agreement to lease a certain portion of their property to EDL (formerly Granger Electric) for the construction of a landfill gas to energy facility. EDL was issued a permit (PTI No. 98-12) to install two Caterpillar Model G3520C stationary reciprocating internal combustion engines (RICE) and an open flare that was later rolled into OHSL's ROP as Section 2. The installation of the engines and the emissions of Formaldehyde from them are above major source individual HAP thresholds and thus made the landfill subject to the NESHAP. Engines #1 and #2 at the EDL plant are also subject to the NSPS JJJJ and NESHAP ZZZZ (RICE MACT). These and other applicable requirements are contained in OHSL's Renewable Operating Permit (ROP) No. MI-ROP-N5719-2016. In 2018, EDL submitted a permit application to install another engine (Caterpillar 3516) that was issued on August 21, 2018 as PTI No. 25-18. They currently have a permit modification application in to roll that permit into the ROP. This 3<sup>rd</sup> engine (Engine #3) is also subject to NESHAP ZZZZ but not to the NSPS JJJJ due to the date of manufacture of the engine (before 2006). The purpose of the inspection was to determine OHSL's and EDL's compliance status with their pertinent sections of the ROP, PTI No. 25-18, and any other state and/or federal air regulations. Staff departed for the facility at approximately 9:35 a.m.

**NOTE:** Staff inspected the EDL plant first and OHSL after having lunch because at times in the past, no one was around the EDL plant in the afternoon and staff had to make a return trip back to conduct it.

### EDL (Section 2)

Staff arrived at the EDL Plant at approximately 10:40 a.m. Staff proceeded to enter the office area but couldn't locate anyone. Staff then went on to the control room and no one was there either. Staff then looked through the window of the door leading to the engine room and noticed the Scott Eastman (Plant Operator) working on Engine #1. Staff did not want to startle him since he wasn't expecting him so they tried knocking on the door. That didn't work but a few minutes later Scott happened to look over and noticed staff in the control room. He then came into the control and staff introduced them self and stated the purpose of the visit. Scott asked how long the inspection would take and staff replied probably about an hour and half or so. Staff said that they would try to make it as quick as possible so that he could get back to working on the engine. We then proceeded to the conference room. Staff then gave Scott a business card and asked him about current plant operations and for records pertaining to the various conditions contained in Section 2 of the ROP and PTI No. 25-18. The following is a

summary of staff's conversation with Jake and Scott which will be followed by the permit conditions pertaining to them along with staff's comments regarding them.

According to Scott, EDL still has the (2) Caterpillar 3520 internal combustion engines as well as (1) 3516 that was recently installed. A compressor system still supplies the vacuum to OHLF's wellfield to provide the landfill gas that is combusted by the three engines. Staff then asked when the Engine #3 was started up and he replied that initial start-up was June 1, 2019. Staff then mentioned to him that he may want to remind Dan Zimmerman (Director of N.A. HSE and Compliance) that they have 180 days after start-up to complete stack testing of Formaldehyde on that engine. Scott said he would and made a note of it. Staff then asked if they had enough gas to operate all three engines at full load. He said that when all the engines are in operation they have to derate them because of AEP's interconnect. Scott said that currently they can't go over 3.6(?) MW and have been trying to get AEP to upgrade the interconnect so they can run at full load. Staff then asked if they have to run the flare when all three engines are running. Scott said that they only run the flare when there is something wrong or when one of the engines are down for maintenance. He said that he was performing routine maintenance on Engine #1 when staff showed up so the flare is currently in operation. Staff then went over the conditions of their Section of the ROP and PTI No. 25-18. The following are the Special Conditions contained in Section 2 of the ROP and PTI No. 25-18 and they will be followed by the compliance status with them. Staff deleted all conditions that were N/A to save some space. Also, Staff was able to get all the information needed while at the plant except for the 12-month rolling landfill gas amount consumed by the engines. Staff had to follow up with Dan Zimmerman of EDL regarding that.

#### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUICEENGINE1-S2	Internal combustion engine (Caterpillar G3520C) for combusting treated landfill gas to produce electricity.	2012	FGICEENGINES-S2
EUICEENGINE2-S2	Internal combustion engine (Caterpillar G3520C) for combusting treated landfill gas to produce electricity.	2012	FGICEENGINES-S2
EUTREATMENTSYS-S2	This emission unit treats landfill gas before its subsequent use or sale. The treatment system removes particulate to at least the 10 micron level,	2012	NA

	compresses the landfill gas, and removes enough moisture to ensure good combustion of gas for subsequent use; therefore, guaranteeing that the intent of the destruction of the NMOC will be maintained.		
EUOPENFLARE-GE-S2	Open flare is an open combustor without enclosure or shroud. The design capacity of the flare is 1,350 standard cubic feet per minute (scfm). Landfill gas that is not combusted in FGICEENGINES-S2 is destroyed by this flare.	09-12 09-15	NA

**EUOPENFLARE-GE-S2  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Open flare is an open combustor without enclosure or shroud. The design capacity of the flare is 1,350 standard cubic feet per minute (scfm). Landfill gas that is not combusted in FGICEENGINES-S2 is destroyed by this flare.

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The design capacity of EUOPENFLARE-GE-S2 shall not exceed 1,350 scfm.<sup>2</sup> (R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance.

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-S2

AQD Comment: Appears to be in Compliance with all the Above. The facility has been submitting the required Semi-Annual/Annual Report Certifications.

#### VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVOPENFLARE-GE-S2	8 <sup>2</sup>	28 <sup>2</sup>	R 336.1225 R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

AQD Comment: Appears to be in Compliance. The stack appears to meet the dimensions mentioned above.

#### Footnotes:

<sup>1</sup>This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

<b>EUTREATMENTSYS-S2 EMISSION UNIT CONDITIONS</b>
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#### DESCRIPTION

This emission unit treats landfill gas before its subsequent use or sale. The treatment system removes particulate to at least the 10 micron level, compresses the landfill gas, and removes enough moisture to ensure good combustion of gas for subsequent use; therefore, guaranteeing that the intent of the destruction of the NMOC will be maintained.

#### POLLUTION CONTROL EQUIPMENT

Any emissions from any atmospheric vents or stacks associated with the treatments system shall be subject to §60.752(b)(2)(iii)(A) or (B).

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate the treatment system at all times when the collected gas is routed to the treatment system. (40 CFR 60.753(f))



**AQD Comment:** Appears to be in COMPLIANCE. The facility operates the system whenever landfill gas is routed to it.

2. The permittee shall operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system shall be subject to §60.752(b)(2)(iii)(A) or (B). (40 CFR 60.752(b)(2)(iii)(C), 40 CFR 63.1955(a))

**AQD Comment:** Appears to be in COMPLIANCE. There are no stacks or vents associated with the treatment system.

3. The permittee shall operate the treatment system to comply with the provisions of 60.753(e) and (f), and 60.756(d). (40 CFR 60.752(b)(2)(iv), 40 CFR 63.1955(a))

**AQD Comment:** Appears to be in COMPLIANCE. The system appears to comply with the requirements of Part 60 Subpart WWW.

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The treatment system shall be designed as approved by AQD. (40 CFR 60.752(b)(2)(iii)(C), 40 CFR 60.752(b)(2)(i)(D), 40 CFR 63.1955(a))

**AQD Comment:** Appears to be in COMPLIANCE. The AQD uses the EPA guidance on the design of the system which it appears to meet.

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep up-to-date, readily accessible records of all control or treatment system exceedances of the operational standards in §60.753(e) and (f). (40 CFR 60.758(e), 40 CFR 63.1955(a))

**AQD Comment:** Appears to be in COMPLIANCE. There have been no exceedances to date with the system to staff's knowledge.

2. The permittee shall keep records of all preventative maintenance performed in accordance with the preventative maintenance plan (PMP) prepared pursuant to condition IX.3. of this permit. (40 CFR 60.756(d), R 336.1213(3))

**AQD Comment:** Appears to be in COMPLIANCE. The facility has a PMP and documents all maintenance done on equipment.

3. The permittee shall provide information to the AQD as provided in 40 CFR 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The AQD shall review the information and either approve it, or request that additional information be submitted. The AQD may specify additional appropriate monitoring procedures. (40 CFR 60.756(d)).

**AQD Comment:** Appears to be in COMPLIANCE. The facility operates the treatment system following EPA guidance for a treatment system.

#### **VII. REPORTING**

**AQD Comment:** Items 1 through 6 below appear to be in COMPLIANCE. The facility is and/or has submitted the below reports.

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be postmarked or received by appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be postmarked or received by appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. A description of the operation of the treatment system, the operating parameters that indicate proper performance, and the appropriate monitoring procedures shall be submitted the appropriate AQD District Office for review within 30 days after the issuance of this permit. (40 CFR 60.752(b)(2)(i)(B), 40 CFR 63.1955(a))
5. The permittee shall submit to the appropriate AQD District Office semiannual reports for the landfill gas treatment system. The report shall be received by appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (40 CFR 60.757(f), 40 CFR 63.1980(a), 40 CFR 63.1955(a))

The report shall include:

- a. Value and length of time for exceedance of applicable parameters monitored under §60.756(d). (R 336.1213(3), 40 CFR 60.757(f)(1), 40 CFR 63.1980(a), 40 CFR 63.1955(a))
  - b. Description and duration of all periods when the gas stream is diverted from the treatment system through a bypass line or the indication of bypass flow. (R 336.1213(3))
  - c. Description and duration of all periods when the treatment system was not operating for a period exceeding 1 hour and length of time the control device was not operating. (40 CFR 60.757(f)(3), 40 CFR 63.1980(a), 40 CFR 63.1955(a))
  - d. Description and duration of all periods when the treatment system was not operated in accordance with the operating parameters and monitoring procedures that were part of the plan in condition number VII.4. (R 336.1213(3))
6. The permittee shall submit the startup, shutdown, and malfunction (SSM) report to the appropriate AQD District Office and it shall be delivered or postmarked by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (40 CFR 63.10(a)(5), 40 CFR 63.10(d)(5))

**IX. OTHER REQUIREMENT(S)**

1. The provisions of 40 CFR, Part 60, Subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour for the treatment system. (40 CFR 60.755(e), 40 CFR 63.1955(a))

**AQD Comment:** Appears to be in COMPLIANCE.

2. The permittee shall have developed and implemented a written SSM plan according to the provision in 40 CFR 63.6(e)(3) for EUTREATMENTSYS-S2. A copy of the SSM plan shall be maintained on site. (40 CFR 63.1960, (40 CFR 63.1965(c))

**AQD Comment:** Appears to be in COMPLIANCE. The facility has an SSM Plan on site that was developed according to the NESHAP.

- The permittee shall have implemented a written preventative maintenance plan (PMP) for EUTREATMENTSYS. At a minimum, the plan shall include a schedule of maintenance activities consistent with manufacturer's recommendations, and the operating variables that will be monitored to detect a malfunction or failure. A copy of the PMP shall be maintained on site and available upon request. (40 CFR 60.756(d), R 336.1213(3), R 336.1911)

AQD Comment: Appears to be in COMPLIANCE. The facility has a PMP for all its equipment and Scott said that they use a database system called Pronto to schedule and track all equipment maintenance.

**Footnotes:**

- <sup>1</sup>This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
- <sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGICEENGINES-S2	Two internal combustion engines (Caterpillar G3520C) for combusting treated landfill gas to produce electricity.	EUICEENGINE1-S2, EUICEENGINE2-S2
FG-RICEMACT-S2	New and reconstructed non-emergency engines greater than 500 hp firing landfill/digester gas, located at a major source of HAP. Commenced construction or reconstruction on or after December 19, 2002.	EUICEENGINE1-S2, EUICEENGINE2-S2

**FGICENGINES-S2  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two reciprocating internal combustion engines (Caterpillar G3520C) for combusting treated landfill gas to produce electricity.

Emission Units: EUICEENGINE1-S2, EUICEENGINE2-S2

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/	Equipment	Monitoring/ Testing	Underlying Applicable
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		Operating Scenario		Method	Requirements
1. CO	3.5 g/hp-hr per engine <sup>2</sup>	Test Protocol*	EUICEENGINE1-S2, EUICEENGINE2-S2	SC V.1	40 CFR 60.4233(e)
2. CO	17.3 pph per engine <sup>2</sup>	Test Protocol*	EUICEENGINE1-S2, EUICEENGINE2-S2	SC V.1, SC VI.1, SC VI.2	R 336.2804, 40 CFR 52.21(d)
3. NOx	1.0 g/hp-hr per engine <sup>2</sup>	Test Protocol*	EUICEENGINE1-S2, EUICEENGINE2-S2	SC V.1	40 CFR 60.4233(e)
4. NOx	4.94 pph per engine <sup>2</sup>	Test Protocol*	EUICEENGINE1-S2, EUICEENGINE2-S2	SC V.1, SC VI.1, SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
5. VOC	1.0 g/hp-hr per engine <sup>2</sup>	Test Protocol*	EUICEENGINE1-S2, EUICEENGINE2-S2	SC V.1	40 CFR 60.4233(e)
6. Formaldehyde	2.08 pph per engine <sup>2</sup>	Test Protocol*	EUICEENGINE1-S2, EUICEENGINE2-S2	SC V.2	R 336.1225 (2)
*Test Protocol shall determine the averaging time.					

AQD Comment: Appears to be in Compliance. All testing to date has demonstrated compliance with the above limits.

## II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Landfill Gas	568.699 MMscf per year <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	FGICEENGINES-S2	SC VI.1	R 336.1205 (3)

AQD Comment: Will consider them to be in Compliance. Staff reviewed 12-month rolling records from June 2018 through May 2019 and they exceeded this amount in October (569.80 MMscf) and November (570.95 MMscf) of 2018. However, they had notified staff at the time it had occurred and took actions to make sure it didn't happen again. They also had reported this in their Semi-Annual and Annual ROP Certifications back in March. This had not been an

issue in the past and considering the amount of the exceedance, staff just warned them about it but told them that they will send a VN should it continue to occur in the future.

### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn treated landfill gas in FGICEENGINES-S2 except during times of start-up, shut-down or malfunction or during times of maintenance on the gas treatment system.<sup>2</sup> (40 CFR 60.752(b)(2)(iii)(c))

**AQD Comment:** Appears to be in Compliance. The plant only combusts treated landfill gas.

2. No later than 60 days after issuance of this permit, the permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement/preventative maintenance plan for FGICEENGINES-S2. After approval of the malfunction abatement/preventative maintenance plan by the AQD District Supervisor, the permittee shall not operate FGICEENGINES-S2 unless the malfunction abatement/preventative maintenance plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum the plan shall include:
  - a. Identification of the equipment and, if applicable, air-cleaning device, and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
  - b. Description of the items or conditions to be inspected and frequency of the inspections or repairs.**
  - c. Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
  - d. Identification of the major replacement parts that shall be maintained in inventory for quick replacement.**
  - e. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the malfunction abatement/preventative maintenance plan to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies.<sup>2</sup> (R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR 60.4243(b)(2))

**AQD Comment:** Appears to be in Compliance with the Above. The facility submitted a MAP and it appears no updates to it have been required.

3. Based on each engine's kilowatt output, the permittee shall adjust the engine's air/fuel ratio, as needed, to ensure that each engine in FGICEENGINES-S2 operates at its maximum design output based on the fuel available to burn.<sup>2</sup> (R 336.1702(a), R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The engines automatically adjust this air/fuel ratio depending on landfill gas quality to ensure maximum kW output.

4. The permittee shall operate and maintain each engine in FGICEENGINES-S2 such that it meets the emission limits in SC I.1, I.3, and I.5 over the entire life of the engine.<sup>2</sup> (40 CFR 60.4234, 40 CFR 60.4243(b))

AQD Comment: Appears to be in Compliance. The facility has standards in place when it comes to engine maintenance schedules.

5. If the permittee purchased a non-certified engine or operates a certified engine in a non-certified manner, the permittee shall keep a maintenance plan for FGICEENGINES-S2 and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.<sup>2</sup> (40 CFR 60.4243(b))

AQD Comment: Appears to be in Compliance. The facility appears to do the above.

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any engine in FGICEENGINES-S2 unless the engines air/fuel ratio controller is installed, maintained and operated in a satisfactory manner.<sup>2</sup> (R 336.1702, R 336.1910)

AQD Comment: Appears to be in Compliance. The engines are equipped with this and staff assumes they are being operated and maintained properly.

2. The permittee shall equip and maintain each engine in FGICEENGINES-S2 with non-resettable hours meters to track the operating hours.<sup>2</sup> (R 336.1225, 40 CFR 60.4243)

AQD Comment: Appears to be in Compliance. Staff noted during the inspection that Engine #1 had been operated 54,243 hours and Engine #2 54,239 hours.

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall conduct an initial performance test for each engine in FGICEENGINES-S2, to verify NOx, CO, and VOC emission rates. The permittee shall conduct an initial performance test within 60 days after achieving the maximum production rate but not later than 180 days after initial startup of each engine in FGENGINE-S2 and subsequent performance testing every 8760 hours of operation or three years, whichever occurs first, to demonstrate compliance. The performance tests shall be conducted according to 40 CFR 60.4244. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR Part 60 Subpart JJJJ)

AQD Comment: Appears to be in Compliance. The facility did the initial test and has been conducting the NSPS JJJJ testing at the required intervals.

2. Once during the term of the ROP (testing was completed 07/16/2013), the permittee shall verify formaldehyde emission rates from one or more engine(s) in FGICEENGINES-S2 by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the

test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1225, R 336.2001, R 336.2003, R 336.2004)

**AQD Comment:** Appears to be in Compliance. The testing has been completed as noted in the condition itself.

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall continuously monitor and record, in a satisfactory manner, the landfill gas usage for the engines in FGICEENGINES-S2.<sup>2</sup> (R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The facility continuously monitors and records the landfill gas usage in both engines.

2. The permittee shall continuously monitor, in a satisfactory manner, the kilowatt output from each engine in FGICEENGINES-S2.<sup>2</sup> (R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The facility continuously monitors and records kW output for both engines.

3. The permittee shall continuously monitor, in a satisfactory manner, the hours of operation from each engine in FGICEENGINES.<sup>2</sup> (40 CFR 60.4243)

**AQD Comment:** Appears to be in Compliance. The facility continuously monitors the hours of operation for both engines.

4. The permittee shall keep, in a satisfactory manner, records of all maintenance activities conducted according to the malfunction abatement/preventative maintenance plan (pursuant to SC III.2). The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> (R 336.1702(a), R 336.1911, R 336.1912, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The facility has records of maintenance.

5. The permittee shall keep, in a satisfactory manner, records of the landfill gas usage for the engines in FGICEENGINES-S2 on a monthly and 12-month rolling time period basis as determined at the end of each calendar month, as required by SC VI.1. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> (R 336.1225, R 336.1702, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The facility is doing the above.

6. The permittee shall record the kilowatt output from each engine in FGICEENGINES-S2, a minimum of once per day, excluding holidays and weekends when an engine operator is not scheduled, or called in, to be on site, as required by SC VI.2. A list of excluded holidays shall be maintained on site and made available to the Air Quality Division upon request. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> (R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The facility continuously records kW output

and also records it once per day on a spreadsheet when an operator is scheduled to be there.

7. The permittee shall keep, in a satisfactory manner, records of the hours of operation from each engine in FGICEENGINES-S2, on a monthly and 12-month rolling time period basis as determined at the end of each calendar month, as required by SC VI.3. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.<sup>2</sup> (R 336.1225, R 336.1702, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR 60.4243)

AQD Comment: Appears to be in Compliance. The facility is doing the above.

8. The permittee shall keep records of the following information for each engine included in FGICEENGINES-S2:
- All notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.
  - Maintenance conducted on any engine in FGICEENGINES-S2.
  - If any engine in FGICEENGINES-S2 is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
  - If any engine in FGICEENGINES-S2 is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that any engine in FGICEENGINES-S2 meets the emission standards.<sup>2</sup> (40 CFR 60.4245 (a))

AQD Comment: Appears to be in Compliance with items a) through b) above. The engines are non-certified and NSPS JJJJ testing has been demonstrating compliance.

## VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-S2

AQD Comment: Appears to be in Compliance with items 1 through 3 above. The facility is doing the reporting as required.

## VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions	Minimum Height Above Ground	Underlying Applicable Requirements



	(inches)	(feet)	
1. SVICEENGINE1-S2	14.0 <sup>2</sup>	65.0 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SVICEENGINE2-S2	14.0 <sup>2</sup>	65.0 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

AQD Comment: Appears to be in Compliance. The stacks appear to meet the above size and height requirements.

#### IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to each engine in FGICEENGINES-S2.<sup>2</sup> (40 CFR Part 60, Subpart A and JJJJ)
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine in FGICEENGINES-S2.<sup>2</sup> (40 CFR Part 63, Subparts A and ZZZZ)

AQD Comment: Appears to be in Compliance. The facility to date appears to be complying with federal regulations mentioned in #1 and #2 above.

#### Footnotes:

<sup>1</sup>This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

<b>FG-RICEMACT-S2 FLEXIBLE GROUP CONDITIONS</b>
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#### DESCRIPTION

New and reconstructed engines located at a Major Source >500 hp, non-emergency firing landfill/digester gas. Commenced construction or reconstruction on or after December 19, 2002. Compliance date is upon start-up.

Emission Unit: FGICEENGINES-S2

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each engine in FG-RICEMACT-S2 shall operate in a manner which reasonably minimizes HAP emissions.<sup>2</sup> (40 CFR 63.6625(c))

AQD Comment: Appears to be in Compliance. Staff has to assume that they operate the engines appropriately to minimize HAP emissions.

2. Each engine in FG-RICEMACT-S2 shall operate in a manner which minimizes time spent at idle during startup and minimize the startup time to a period needed for appropriate and

safe loading of each engine, not to exceed 30 minutes.<sup>2</sup> (40 CFR 63.6625(h))

AQD Comment: Appears to be in Compliance. Staff has to assume that they are doing this.

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The engines in FG-RICEMACT-S2 shall equip and maintain separate fuel meters to monitor and record the daily fuel usage and volumetric flow rate of each fuel used.<sup>2</sup> (40 CFR 63.6625(c))

AQD Comment: Appears to be in Compliance. The engines have separate fuel meters and they only combust landfill gas.

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Each engine in FG-RICEMACT-S2, which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, must monitor and record the daily fuel usage with separate fuel meters to measure the volumetric flow rate of each fuel.<sup>2</sup> (40 CFR 63.6625(c))

AQD Comment: Appears to be in Compliance. The monitor and record fuel usage and the only fuel combusted is landfill gas.

#### VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit an annual report in accordance with Table 7 of 40 CFR Part 63, Subpart ZZZZ to the appropriate AQD district office by March 15th for the reporting period from January 1 to December 31.<sup>2</sup> (40 CFR 63.6650(g), 40 CFR 63.6650(b)(5)) The following information shall be included in this annual report:
  - a. The fuel flow rate and the heating values that were used in the permittee's calculations to determine the gross heat input on an annual basis. Also, the permittee must demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.<sup>2</sup> (40 CFR 63.6650(g)(1))
  - b. The operating limits provided in the permittee's federally enforceable permit, and any deviations from these limits. (40 CFR 63.6650(g)(2))
  - c. Any problems or errors suspected from the fuel flow rate meters.<sup>2</sup> (40 CFR 63.6650(g)(3))

See Appendix 8-S2

AQD Comment: Appears to be in Compliance with #1 through #4 above. They are submitting the required semi-annual/annual ROP Reports and SSM Reports and an annual ZZZZ Report.

#### IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine in FG-RICEMACT-S2.<sup>2</sup> (40 CFR Part 63, Subparts A and ZZZZ)

AQD Comment: Appears to be in Compliance.

#### Footnotes:

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

### SPECIAL CONDITIONS OF PTI 25-18

#### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUICEENGINE3	One (1) 1,148 BHP internal combustion engine (CAT 3516) manufactured before 2006, for combusting treated landfill gas to produce electricity.	TBD	FG-RICEMACT
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

#### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-RICEMACT	New and reconstructed non-emergency engines greater than 500 hp firing landfill/digester gas, located at a major source of HAPs.	EUICEENGINE1 EUICEENGINE2

	Commenced construction or reconstruction on or after December 19, 2002.	EUICEENGINE3
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The following conditions apply to:  
EUICEENGINE3

**DESCRIPTION:** One (1) 1,148 BHP internal combustion engine (CAT 3516) manufactured before 2006, for combusting treated landfill gas to produce electricity.

Flexible Group ID: FG-RICEMACT

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Formaldehyde	0.75 pph	Hourly	EUICEENGINE3	SC V.1	R 336.1225(2)
2. SO <sub>2</sub>	22 tpy	12-month rolling time period as determined at the end of each calendar month	EUICEENGINE3	SC V.2, VI.5	R 336.1205(1)(a) & (3), R 336.1225

**AQD Comment:** Appears to be in Compliance. The engines initial start-up date was June 1, 2019 so they have until December 1, 2019 to conduct stack testing to demonstrate compliance with the Formaldehyde emission limit in #1 above. As for the SO<sub>2</sub> limit in #2 above, the facility has taken draeger tube readings but with the engine only being in operation for under 2 months, there hasn't been enough time to generate records.

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall only burn treated landfill gas in EUICEENGINE3 except during times of start-up, shut-down or malfunction or during times of maintenance on the gas treatment system. (R 336.1225, 40 CFR 60.752(b)(2)(iii)(c))

**AQD Comment:** Appears to be in Compliance. The engine only burns treated landfill gs.

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EUICEENGINE3 unless an air-to-fuel ratio controller is installed, maintained and operated in a satisfactory manner. (R 336.1702(a), R 336.1910)

**AQD Comment:** Appears to be in Compliance. The engine is equipped with this and staff will assume that it was installed and is being maintained and operated properly.

2. The design capacity of EUICEENGINE3 shall not exceed 1,148 bhp as specified by the equipment manufacturer. (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance.

3. The permittee shall equip and maintain EUICEENGINE3 with a device to monitor and record the daily fuel usage. (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 63.6625(c))

**AQD Comment:** Will Consider them to be in Compliance. The engine wasn't equipped with a fuel meter but the facility was able to track fuel usage by subtracting the amount of fuel that was being consumed by the two other engines and/or flare. Since this engine has only been in use for 409 hours since the initial start-up on June 1, 2019, we gave the facility the option of installing a flow meter within 60 days or submit a permit modification by August 30, 2019 to either remove or modify this condition. The facility agreed to modify the permit. (See Attached E-Mail)

4. The permittee shall equip and maintain EUICEENGINE3 with non-resettable hours meters to track the operating hours. (40 CFR 60.4243)

**AQD Comment:** Appears to be in Compliance. The engine has operated for 490 hours since initial start-up on June 1, 2019.

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. Within 180 days after initial startup of EUICEENGINE3 and within every 5 years from the date of completion of the most recent stack test or within the cycle of the renewable operating permit, thereafter, the permittee shall verify formaldehyde emission rates from EUICEENGINE3 by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1225, R 336.2001, R 336.2003, R 336.2004)

**AQD Comment:** Appears to be in Compliance. The engines initial start-up date was June 1, 2019 so they have until December 1, 2019 to conduct stack testing to demonstrate compliance with the Formaldehyde emission limit.

2. The permittee shall verify the hydrogen sulfide (H<sub>2</sub>S) or total reduced sulfur (TRS) content of the treated landfill gas burned in EUICEENGINE3 on a monthly basis by gas testing (e.g. Draeger Tubes, Tedlar Sampling Bags, etc) and semi-annually by gas sampling using an EPA approved method and laboratory analysis, at the owner's expense, in accordance with

Department requirements. No less than 30 days prior to the initial test, the permittee shall submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to the first test. Thereafter, the permittee shall submit a test plan upon the request of the AQD District Supervisor. If, after a year, each of the monthly concentrations of the hydrogen sulfide or total reduced sulfur concentration of the landfill gas are below 1413 ppm (TRS equivalent), the permittee may petition the AQD District Supervisor to reduce the frequency of gas sampling and recording the hydrogen sulfide / total reduced sulfur concentration of the treated landfill gas to quarterly. If at any time the H<sub>2</sub>S (TRS equivalent) concentration of the landfill gas sample exceeds 1,414 ppm, the permittee shall conduct sampling and recording on a weekly basis and shall review all operating and maintenance activities for the landfill gas collection and treatment system along with keeping records of corrective actions taken. Once the concentration determined from the weekly readings are maintained below 1,414 ppm of H<sub>2</sub>S (TRS equivalent) concentration in the landfill gas for one month after an exceedance, the permittee may resume monthly monitoring and recordkeeping. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205(3), 40 CFR 52.21 (c) & (d), R 336.2001, R 336.2003, R 336.2004)

**AQD Comment:** Appears to be in Compliance. The engines initial start-up date was June 1, 2019 and they have taken two monthly draeger tube reading so far. They have another 4 months to conduct the semi-annual gas sampling using an EPA approved method and lab analysis.

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The engine hasn't been in operation long enough to really generate monthly and 12-month rolling records yet, but the facility has kept records for the other 2 engines in an acceptable format.

2. The permittee shall keep, in a satisfactory manner, records of the landfill gas usage for the engines in EUIENGINE3 on a monthly and 12-month rolling time period basis as determined at the end of each calendar month, as required by SC VI.1. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1205(3), R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21(c) & (d))

**AQD Comment:** Appears to be in Compliance. The engine hasn't been in operation long enough to really generate record monthly and 12-month rolling records yet

3. The permittee shall keep, in a satisfactory manner, records of the hours of operation from each engine in EUICEENGINE3, on a monthly and 12-month rolling time period basis as determined at the end of each calendar month, as required by SC VI.1. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR 60.4243)

**AQD Comment:** Appears to be in Compliance. The engine hasn't been in operation long enough to really generate monthly and 12-month rolling records yet.

4. The permittee shall keep, in a satisfactory manner, records of the H<sub>2</sub>S (TRS equivalent) concentration sampling results of the treated landfill, on a monthly basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR 60.4243)

**AQD Comment:** Appears to be in Compliance. The engines initial start-up date was June 1, 2019 and they have taken only two monthly samples so far. They take the samples using a Tedlar Bag and then sample it with a draegar tube.

5. The permittee shall calculate and record the monthly and 12-month SO<sub>2</sub> emission rate from EUICEENGIEN3 using the equation in Appendix A, or other method as approved by the AQD District Supervisor. The calculations shall utilize the actual gas usage, actual hours of operation, and the sulfur concentration from the most recent gas sampling data unless otherwise requested by the AQD. All records shall be kept on file at the facility and make them available to the Department upon request. (R 336.1205(3)), R 336.2803, R 336.2804)

**AQD Comment:** Appears to be in Compliance. The engine hasn't been in operation long enough to really generate monthly and 12-month rolling records yet.

## **VII. REPORTING**

1. In accordance with R 336.1285(2)(a)(vi), engine replacements can only be done under a normal maintenance program. If EUICEENGINE3 is replaced with an equivalent-emitting or lower-emitting engine, the permittee shall notify the AQD District Supervisor of such change-out and submit a description of the engine and acceptable emissions data to show that the alternate engine is equivalent-emitting or lower-emitting. The data shall be

submitted within 30-days of the engine change out. (R 336.1205, R 336.1702(a), R 336.1911, 40 CFR 52.21 (c) & (d))

AQD Comment: Appears to be in Compliance since N/A to date.

### VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVICEENGINE3	14.0	65.0	R 336.1225, 40 CFR 52.21 (c) & (d)

AQD Comment: Appears to be in Compliance with the above dimensions.

### IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR 63, Subpart A and Subpart ZZZZ, as they apply to EUICEENGINE3. (40 CFR Part 63, Subparts A and ZZZZ)

AQD Comment: Appears to be in Compliance

#### The following conditions apply to: FG-RICEMACT

**DESCRIPTION:** New and Reconstructed Engines located at a Major Source > 500 HP, Non-emergency firing Landfill/Digester Gas. Commenced Construction or Reconstruction on or after December 19, 2002. Compliance date is upon start-up.

Emission Unit ID: EUICEENGINE1, EUICEENGINE2, EUICEENGINE3

### III. PROCESS/OPERATIONAL RESTRICTIONS

1. Each engine in FG-RICEMACT shall operate in a manner which reasonably minimizes HAP emissions. (40 CFR 63.6625(c))

AQD Comment: Appears to be in Compliance

2. Each engine in FG-RICEMACT shall operate in a manner which minimizes time spent at idle during startup and minimize the startup time to a period needed for appropriate and safe loading of each engine, not to exceed 30 minutes. (40 CFR 63.6625(h))

AQD Comment: Appears to be in Compliance. Staff has to assume that they are doing this.

### IV. DESIGN/EQUIPMENT PARAMETERS

1. The engines in FG-RICEMACT shall equip and maintain separate fuel meters to monitor and record the daily fuel usage and volumetric flow rate of each fuel used. (40 CFR 63.6625(c))



**AQD Comment:** Appears to be in Compliance. The MACT ZZZZ only requires separate fuel meters be installed on each engine if combusting multiple fuels which isn't currently the case here.

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3), 40 CFR 63.6660)

1. Each engine in FG-RICEMACT, which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, must monitor and record the daily fuel usage with separate fuel meters to measure the volumetric flow rate of each fuel. (40 CFR 63.6625(c))

**AQD Comment:** Appears to be in Compliance. The monitor and record fuel usage and the only fuel combusted is landfill gas.

#### **VII. REPORTING**

1. The permittee shall submit an annual report in accordance with Table 7 of 40 CFR Part 63, Subpart ZZZZ to the appropriate AQD district office by March 15th for the reporting period from January 1 to December 31. The following information shall be included in this annual report: (40 CFR 63.6650(g), 40 CFR 63.6650(b)(5))
  - a. The fuel flow rate and the heating values that were used in the permittee's calculations to determine the gross heat input on an annual basis. Also, the permittee must demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis. (40 CFR 63.6650(g)(1))
  - b. The operating limits provided in the permittee's federally enforceable permit, and any deviations from these limits. (40 CFR 63.6650(g)(2))
  - c. Any problems or errors suspected from the fuel flow rate meters. (40 CFR 63.6650(g)(3))

**AQD Comment:** Appears to be in Compliance. The facility has been submitting an annual ZZZZ report.

#### **IX. OTHER REQUIREMENTS**

1. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine in FG-RICEMACT. (40 CFR Part 63, Subparts A and ZZZZ)

**AQD Comment:** Appears to be in Compliance.

### **APPENDIX A SO<sub>2</sub> Emission Calculations**

#### **Calculation for SO<sub>2</sub> Emissions**

The following calculation for SO<sub>2</sub> emissions shall utilize the actual gas usage, actual hours of operation, and the sulfur concentration from the most recent laboratory test sample.

$$\text{SO}_2 = [(\text{scfm}) \times (60 \text{ min/hr}) \times (\text{H}) \times (\text{ppmv}_{\text{sulfur}} * 1\text{E-}06) \times (\text{MW SO}_2)] \div [(R \times T)] = \text{pounds/month}$$

**Where:**

scfm = standard cubic feet per minute gas flow

ppmv<sub>sulfur</sub> = parts per million by volume of Sulfur in the gas (based on the most recent test sample)

MW<sub>SO2</sub> = Molecular Weight of SO<sub>2</sub> = 64.066 lb/lb-mol

H = Actual Hours per month operated

R = Universal Gas Constant = 0.7302 atm-ft<sup>3</sup>/lb-mol-R

T = Standard Temperature (absolute) = 519 R

After going over all the permit conditions, Staff proceeded with Scott out into the control room to take some readings. Staff noted that the Serial Number for Engine #1 is still GZJ00541 and Engine #2 is still GZJ00540. The new engine (#3) has a Serial Number of RC00655. Staff noted that Engine #2 was putting out 1.6 MW of energy and Engine #3 was putting out 0.8 MW. Flow to the flare was only 50 scfm and it was operating at 1240 degrees F. Together, the engines were putting out approximately 2.4 MW of power. Staff noted the landfill gas quality was 46.8% methane (CH<sub>4</sub>) and 1.8% Oxygen (O<sub>2</sub>). Staff then went on a tour of the facility where they observed the three engines, the compressor system, condensate knock out, the gas chiller unit, and the gas dryer. These last several items help make up the pre-treatment system of the landfill gas prior it's combustion in the engines. The pre-treatment system is required by the NSPS for landfills if the electric generating plants want to opt out of certain requirements. Staff also went out behind the plant to check on the open flare. Staff noted that it had 238 scfm of landfill gas going to it and was operating at 1344 degrees F. Staff also looked at the stack for Engine #3 and it appears to meet the stack dimension requirements. There didn't appear to be any issues of concern so staff proceeded back into the plant office. Staff thanked Scott for his time and departed the facility at approximately 12:05 p.m. to go to lunch.

**EDL Inspection Conclusion:** Since the facility agreed to modify PTI No. 25-18 to either remove or modify the condition that requires engine #3 to have a dedicated fuel meter, staff will consider them to be in COMPLIANCE with Section 2 of ROP No. MI-ROP-N5719-2016 at PTI No. 25-18 at the present time.

**Orchard Hill Sanitary Landfill (Section 1)**

Staff arrived in the vicinity of OHSL at approximately 12:50 p.m. after having lunch. Staff took some time to monitor for potential odors and made a couple of circuits around the perimeter roads surrounding the landfill. Winds were out of the SW and staff did not detect any odors. Staff then proceeded to the offices of OHSL and once there they asked Cindy Foerster (office employee) if Chip Shaw (Site Manager) was available. She said that he was somewhere around and went to try to locate him. A few minutes later, Chris Phillips (Compliance Manager) showed up. Chris greeted staff and asked the purpose of the visit. Staff then informed him that OHSL was on their list for inspection this year and we then proceeded back into a conference room. A little while later, Chip came in and staff greeted him as well. The following is a summary of staff's discussion with Chip and Chris which will be followed by their ROP's emission units and OHSL's compliance status with them.

Staff asked Chip and Chris if they've been receiving any odor complaints because staff has not received any nor heard about anything if the EGLE MMD has been getting them. They said that to their knowledge there hasn't been any odor issues and that they've been doing some community outreach to surrounding businesses to let them know when they have wellfield construction going on. Staff then asked about the amount of waste that they are taking in and Chris said that they still average about 700 to 1,000 tons per day. Staff then asked about the 20 gas wells that were recently installed and if they were hooked up to the collection system yet.

Chip said that they have about 13 of the 20 wells connected so far. Staff then asked about the gas well pump system and if it was operational. Chip said that they have a dedicated pump house with a compressor and that they are capable of pumping up to 15 wells at a time if needed. He said that it currently wasn't being operated because they are waiting for all the 2" lines and valves to be installed at the various gas wells. He said that each new well they install now is being equipped with air and discharge lines so that everything will be ready to go should they need to pump condensate out of them in the future. Staff then asked since they use the 2 Reverse Osmosis Systems (R.O) for treating their leachate if they have to haul any leachate off site. Chip said that typically they haven't had to haul any much off site but they had to this past spring because of how wet the winter and spring weather were. He said that they just now got caught up with it. Staff then asked if they recirculate any leachate and Chip said that they don't although the residual/concentrate from the R.O. systems is taken back up to the landfill. Staff then began to look over the requirements of their ROP and the following is a summary of the facilities emission groups, flexible groups, the inspection staff conducted, and the facilities compliance status.

#### **EULANDFILL-S1: Appears to be in COMPLIANCE**

The facility has an approved active gas collection system and the plan is on file with the AQD district office. OHSL currently has an open flare to combust landfill gas but it currently only used as a back-up control device should the EDL plant go down. OHSL has been conducting quarterly surface emissions monitoring and it appears that the appropriate records are being kept. Staff reviewed the records for the past 5 quarters (All of 2018 and first quarter 2019). The records reviewed included instrument calibration data, a map showing the route traversed while doing the monitoring, meteorological data, etc. No documented exceedences of the 500 ppm methane limit were noted. Golder and Associates does their surface emissions monitoring using a Thermo TVA-1000 gas meter. As mentioned in the opening paragraph, OHSL became subject to the NESHAP 40 CFR Part 63 Subpart AAAA for MSW Landfills when the EDL Plant was constructed. That required them to develop a Start-Up, Shutdown, and Malfunction (SSM) Plan which they have. The facility has been submitting the SSM Reports as well as the required semi-annual and annual ROP Certifications to the district office on time. They also submit an annual NMOC generation report although that isn't required now that they are subject to the NSPS and the NESHAP. The ROP certification reports have included any deviations and/or operational issues as required. The facility regularly conducts cover integrity checks when sampling the wellfield or out doing other things. They have records of the amount of solid waste in place as well as the year by year acceptance rates.

#### **EUACTIVECOLL-S1: Appears to be in COMPLIANCE**

The facility has an approved active gas collection system as required and the materials used in the gas collection system appear to be either HDPE or PVC as required. The facility has an ASBUILT drawing showing the existing collection system and proposed expansion areas. The landfill currently has 261 landfill gas monitoring points for NSPS purposes. Some wells have Landtec wellheads but the majority were fabricated by OHSL. Most of the new wells being installed are the Caisson style which allows for easier extension of the well as the landfill cell gets filled. OHSL does their own monthly or more frequent wellhead sampling using an Elkins gas analyzer. They are recording static pressure (vacuum), oxygen, and temperature with the Elkins meter as required. If any of these parameters exceed NSPS standards, the facility appears to be taking corrective actions in the required time frames or asking for alternate compliance timelines and/or alternate operating scenarios. Staff then looked at the most recent 9 months of wellfield data and did not note any issues. Some gas wells have been in quite long time so information on installation is not available, but OHSL does maintain well logs for the newly installed wells along with the dates of installation. As mentioned under EULANDFILL, they have been submitting all the required reports.

**EUOPENFLARE-S1: Appears to be in COMPLIANCE**

As mentioned under EULANDFILL, the facility has an open flare but is now a back-up control device for times when the EDL Plant totally shuts down. The flare is equipped with digital instrumentation (data logger) that records operating parameters and is equipped with a thermocouple to monitor the continuous presence of a flame. Records of its operation can be pulled up on the computer. Near the open flare skid are bypass valves so they can route the gas to the EDL facility, but if the open flare is in use and should shutdown, a pneumatic valve (operated by a nitrogen tank) automatically closes preventing emissions from venting to the atmosphere. Since the Granger Energy Plant is running, the flare wasn't in operation.

**EUGENERATOR-S1: Appears to be in COMPLIANCE**

OHSL operates a 27 kW natural gas emergency backup generator as needed that is subject to the NSPS JJJJ. The generator is programmed to exercise on a weekly basis for 10 minutes for the purpose of readiness testing. The following are the Special Conditions for the generator and staff's comments to them.

<b>EUGENERATOR-S1 EMISSION UNIT CONDITIONS</b>
--

**DESCRIPTION**

One 27-kW natural gas fired engine driving an emergency generator.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx + HC	Less than or equal to 10g/hp-hr	Life of Equipment	EUGENERATOR -S1	SC V.1, V.2	40 CFR Part 60 Subpart JJJJ, Table 1, 40 CFR 60.4243(e)
2. CO	Less than or equal to 387 g/hp-hr	Life of Equipment	EUGENERATOR -S1	SC V.1, V.2	40 CFR Part 60 Subpart JJJJ, Table 1, 40 CFR 60.4243(e)

**AQD Comment:** Appears to be in Compliance with the above limits. The engine is certified and they have never had to fire Propane in it.

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. There is no time limit on the use of EUGENERATOR-S1 during emergency situations. (40 CFR 60.4243(d)(1))

**AQD Comment:** Appears to be in Compliance.

2. The permittee shall not operate EUGENERATOR-S1 for more than 100 hours per year for

purposes of maintenance checks and readiness testing or for emergency demand response as allowed in the 40 CFR 60.4243(d). (40 CFR 60.4243(d)(2))

AQD Comment: Appears to be in Compliance. The engine has operated 13.9 hours since January 1, 2019. They operate it weekly for 10 minutes for readiness testing.

3. EUGENERATOR-S1 may be operated for up to 50 hours per calendar year in non-emergency situations as described in 40 CFR 60.4243(d)(3). These hours will count against the 100 hours per year for the purposes of maintenance checks and readiness testing or for emergency demand response provided in 40 CFR 60.4243(d)(2) except as provided in 40 CFR 60.4243(d)(3)(i). (40 CFR 60.4243(d)(3))

AQD Comment: Appears to be in Compliance.

4. EUGENERATOR-S1 may operate up to 100 hours per year on propane as an alternative fuel solely during emergency operations. (40 CFR 60.4243(e))

AQD Comment: Appears to be in Compliance. Propane hasn't needed to be used.

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip EUGENERATOR-S1 with a non-resettable hour meter. (40 CFR 60.4237(c))

AQD Comment: Appears to be in Compliance. The hours are recorded on a factory installed control panel with a non-resettable hour meter.

2. The permittee shall operate and maintain EUGENERATOR-S1 according to manufacturer's written instructions. (40 CFR 60.4243(a)(1))

AQD Comment: Appears to be in Compliance. Staff will assume that the facility is doing this.

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Performance testing is not required on EUGENERATOR-S1 as long as the permittee keeps a copy of the manufacturer's certification on file that documents the engine complies with the emission limits. (40 CFR 60.4245(a)(3))

AQD Comment: Appears to be in Compliance.

2. If EUGENERATOR-S1 is ever fueled by propane for more than 100 hours per year and it is not certified to the emission standards while using propane, the permittee is required to conduct a performance test to demonstrate compliance with the emissions standards in 40 CFR 60.4233. (40 CFR 60.4243(e))

AQD Comment: Appears to be in Compliance. Propane has not been used.

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall record the hours of operation of EUGENERATOR-S1 for each time it operates along with what classified the event as an emergency and how many hours are

spent for non-emergency operation. (40 CFR 60.4245(b))

AQD Comment: Appears to be in Compliance. The facility is tracking this.

2. The permittee shall maintain records of all maintenance conducted on EUGENERATOR-S1. (40 CFR 60.4243(a)(1))

AQD Comment: Appears to be in Compliance.

3. If EUGENERATOR-S1 is ever fueled by propane, the permittee shall record all hours of such use. (40 CFR 60.4243(e))

AQD Comment: Appears to be in Compliance. Propane has not been used.

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 above. The facility has been submitting the above reports.

See Appendix 8

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart JJJJ, as they apply to EUGENERATOR-S1. (40 CFR Part 63, Subparts A and JJJJ)

AQD Comment: Appears to be in Compliance. The facility appears to meeting the requirements of the NSPS JJJJ.

**EUASBESTOS-S1: Appears to be in COMPLIANCE**

The facility has warning signs, fencing, and/or natural features surrounding the property which should adequately deter access by the general public as required. The facility is keeping all the required records pertaining to asbestos which include the shipping records (waste manifests) of the generator, transporter, and quantity of asbestos accepted. The facility also is maintaining a map that shows the depth and location of the buried asbestos as required.

**FGCOLDCLEANERS-S1: Appears to be in COMPLIANCE**

The facility still uses Safety Kleen to service the cold cleaner and it is located in their maintenance garage and is not a heated unit. It has operational instructions posted on it. Staff had looked at the MSDS sheet during previous inspections and the solvent used does not

in any of the components listed under the material limits above 5%.

**JHSL INSPECTION CONCLUSION:** The facility appears to be in COMPLIANCE with Section 1 of ROP No. MI-ROP-N516 at the present time. Staff thanked Chip and Chris for their time and departed the facility approximately 3:15 p.m.

NAME Matt Darken

DATE 8-1-19

SUPERVISOR RIL 8/1/19

## Deskings, Matthew (EGLE)

---

**From:** Mahmood, Khaled <Khaled.Mahmood@tetrattech.com>  
**Sent:** Tuesday, July 30, 2019 11:46 AM  
**To:** Deskings, Matthew (EGLE)  
**Cc:** Palmer, Jessica  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

Hi Matt, thanks for talking with me yesterday. Yes, we will submit the PTI modification by August 30, hopefully by next week.

You have a wonderful day too.

**Khaled Mahmood** | Client Manager | Tetra Tech  
Direct +1 (248) 991-9694 | Mobile +1 (586) 588-0484 | [Khaled.Mahmood@TetraTech.com](mailto:Khaled.Mahmood@TetraTech.com)

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**From:** Deskings, Matthew (EGLE) <DESKINSM@michigan.gov>  
**Sent:** Tuesday, July 30, 2019 9:31 AM  
**To:** Mahmood, Khaled <Khaled.Mahmood@tetrattech.com>  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Good Morning Khaled,

Thanks for the update and have a great day. Just to verify things and so I can finish my inspection report, the modification will be submitted by August 30, 2019?

---

**From:** Mahmood, Khaled <Khaled.Mahmood@tetrattech.com>  
**Sent:** Tuesday, July 30, 2019 9:08 AM  
**To:** Deskings, Matthew (EGLE) <DESKINSM@michigan.gov>; Dan Zimmerman <dan.zimmerman@edlenergy.com>  
**Cc:** Chip Shaw (<CShaw@landfillmanagement.com> <CShaw@landfillmanagement.com>; Lane, Rex (EGLE) <LANER@michigan.gov>; Owens, Caryn (EGLE) <OwensC1@michigan.gov>; Palmer, Jessica <Jessica.Palmer@tetrattech.com>  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

Good Morning Matt. I spoke with Dan yesterday about this. EDL will be submitting a PTI modification to remove this condition.

Thanks for your assistance on this.

**Khaled Mahmood** | Client Manager | Tetra Tech  
Direct +1 (248) 991-9694 | Mobile +1 (586) 588-0484 | [Khaled.Mahmood@TetraTech.com](mailto:Khaled.Mahmood@TetraTech.com)

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**From:** Deskins, Matthew (EGLE) <DESKINSM@michigan.gov>  
**Sent:** Monday, July 29, 2019 3:57 PM  
**To:** Dan Zimmerman <dan.zimmerman@edlenergy.com>  
**Cc:** Chip Shaw (CShaw@landfillmanagement.com) <CShaw@landfillmanagement.com>; Lane, Rex (EGLE) <LANER@michigan.gov>; Mahmood, Khaled <Khaled.Mahmood@tetrattech.com>; Owens, Caryn (EGLE) <OwensC1@michigan.gov>  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Hi Dan,

I've looked into things further and as you've mentioned previously, separate flow meters are required only for different fuels and not per engine as cited in the RICE MACT. However, this particular permit (PTI 25-18) has a condition (#3 under the Design/Equipment Parameters) that requires that the engine be equipped with some type of device to monitor and record the daily fuel usage and EDL accepted the conditions. I've discussed this with Rex and some other AQD staff and the consensus was that either EDL install a fuel meter on this engine, or, submit a permit modification to get that condition removed.

As has been suggested previously, we will give EDL 60 days to install a flow meter if that is the route chosen. If the decision is to modify the permit, please submit a permit application to our Permit Section by August 30, 2019. Thanks and let me know if you have any questions.

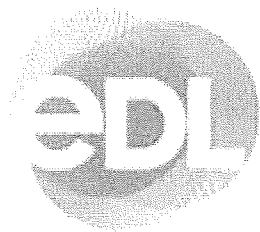
P.S. As you are aware, EDL currently has an ROP Permit Modification Application that was submitted to roll PTI 25-18 into the ROP. Unfortunately, we can't remove PTI conditions through any ROP process and it has to be done through New Source Review. I have contacted the person who does the ROP modifications (Caryn Owens (231) 878-6688 in our Cadillac District Office) and she said will hold off on doing the ROP Modification until the PTI condition has been removed and a new PTI is issued if that is the route chosen. Once the new PTI is issued, you would have to withdraw the current ROP Modification Request and submit a new one to incorporate the new PTI.

**From:** Dan Zimmerman <dan.zimmerman@edlenergy.com>  
**Sent:** Thursday, July 25, 2019 1:42 PM  
**To:** Deskins, Matthew (EGLE) <DESKINSM@michigan.gov>  
**Cc:** Chip Shaw (CShaw@landfillmanagement.com) <CShaw@landfillmanagement.com>; Lane, Rex (EGLE) <LANER@michigan.gov>  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

Thanks! I'll get back with you shortly. Appreciate the flexibility!

**Dan Zimmerman**  
Director of North America HSE & Compliance  
Direct: +1 517 896 4417  
Mobile: +1 517 896 4417  
[edlenergy.com](http://edlenergy.com)

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Lansing Michigan 48933 United States  
PO Box 15217 Lansing Michigan 48901



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**From:** Deskins, Matthew (EGLE) <[DESKINSM@michigan.gov](mailto:DESKINSM@michigan.gov)>  
**Sent:** Thursday, July 25, 2019 1:31 PM  
**To:** Dan Zimmerman <[dan.zimmerman@edlenergy.com](mailto:dan.zimmerman@edlenergy.com)>  
**Cc:** Chip Shaw ([CShaw@landfillmanagement.com](mailto:CShaw@landfillmanagement.com)) <[CShaw@landfillmanagement.com](mailto:CShaw@landfillmanagement.com)>; Lane, Rex (EGLE) <[LANER@michigan.gov](mailto:LANER@michigan.gov)>  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

Hi Dan,

How about 60 days to install it and some sort of documentation submitted to us when it's complete.

---

**From:** Dan Zimmerman <[dan.zimmerman@edlenergy.com](mailto:dan.zimmerman@edlenergy.com)>  
**Sent:** Thursday, July 25, 2019 1:03 PM  
**To:** Deskins, Matthew (EGLE) <[DESKINSM@michigan.gov](mailto:DESKINSM@michigan.gov)>  
**Cc:** Chip Shaw ([CShaw@landfillmanagement.com](mailto:CShaw@landfillmanagement.com)) <[CShaw@landfillmanagement.com](mailto:CShaw@landfillmanagement.com)>; Lane, Rex (EGLE) <[LANER@michigan.gov](mailto:LANER@michigan.gov)>  
**Subject:** RE: Fuel Meter on Engine #3 at Watervliet EDL Plant

Thanks for getting back to me. I'd like to review the permit a little better as I am certain that I identified (not just at this site) where it indicates the flow meters are required for each type of fuel used (also believe it's in the regulation). We can actually calculate the amount of fuel going to the engines so I need to make sure we all understand the rules. The 30 days part may be difficult, is there any flexibility with that? We would need to get the flow meter, have a contractor install it and another contractor tie it into our PLC's. Not sure 30 days is enough.

Just want to make sure I'm wrong 😊

**Dan Zimmerman**

Director of North America HSE & Compliance

Direct: +1 517 896 4417

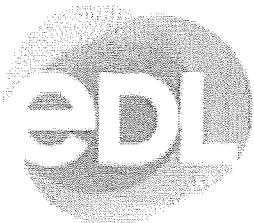
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PO Box 15217 Lansing Michigan 48901



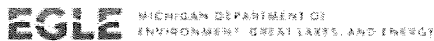
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**From:** Deskins, Matthew (EGLE) <[DESKINSM@michigan.gov](mailto:DESKINSM@michigan.gov)>  
**Sent:** Thursday, July 25, 2019 12:04 PM  
**To:** Dan Zimmerman <[dan.zimmerman@edlenergy.com](mailto:dan.zimmerman@edlenergy.com)>  
**Cc:** Chip Shaw ([CShaw@landfillmanagement.com](mailto:CShaw@landfillmanagement.com)) <[CShaw@landfillmanagement.com](mailto:CShaw@landfillmanagement.com)>; Lane, Rex (EGLE) <[LANER@michigan.gov](mailto:LANER@michigan.gov)>  
**Subject:** Fuel Meter on Engine #3 at Watervliet EDL Plant

Hi Dan,

I spoke with Rex about the issue of the new engine (#3) not being equipped with it's own fuel meter. It was decided that since it specifically states under EUICEENGINE3 and the FG-RICEMACT Tables of the permit that it has to be equipped with its own fuel meter, one should be installed on it. If EDL will commit to having one installed within 30 days, we will not send a VN for the isse. Thanks Dan and let me know if you have any questions.

Matt Deskins  
Environmental Quality Analyst  
Air Quality Division / Kalamazoo District Office  
Michigan Department of Environment, Great Lakes, and Energy (EGLE)  
7953 Adobe Road  
Kalamazoo, MI 49009  
Ph: 269-567-3542  
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