

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

N591031472

FACILITY: Venice Park RDF		SRN / ID: N5910
LOCATION: 9536 Lennon Rd., LENNON		DISTRICT: Lansing
CITY: LENNON		COUNTY: SHIAWASSEE
CONTACT: Lori Winters, P.E., Division Engineer and Compliance Manager		ACTIVITY DATE: 09/14/2015
STAFF: Julie Brunner	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection, a Partial Compliance Evaluation (PCE) activity, conducted as part of a Full Compliance Evaluation (FCE).		
RESOLVED COMPLAINTS:		

**Compliance Inspection Report: Venice Park RDF (N5910)**

On 9/14/2015, DEQ-AQD staff conducted a compliance inspection of Venice Park Recycling and Disposal Facility (RDF). The facility operates per the conditions of Renewable Operating Permit (ROP) No. MI-ROP-N5910-2010, PTI 166-11, and PTI 123-11A. The ROP is currently in renewal and on 9/1/2015 the 45-day EPA comment period started for draft ROP No. MI-ROP-N5910-20XX. The ROP has two sections. Section 1 covers processes owned and operated by Waste Management of Michigan, Inc. (WM) – Venice Park RDF which is the landfill operations and the landfill gas flare. PTI 166-11 currently covers landfill gas-fired engines #1 and #2, and the landfill gas flare owned and operated by WM. Section 2 covers landfill gas-fired engines 3, 4, 5, 6, and a landfill gas treatment system owned and operated by North American Natural Resources (NANR). PTI 123-11A covers NANR engines 3, 4, 5, 6, 7R, 8R, 9, and 10.

Operations owned and operated by WM and NANR comprise a single stationary source known as the Venice Park Recycling and Disposal Facility (Venice Park RDF). WM owns Venice Park RDF which is an active landfill located in eastern Shiawassee County at 9536 East Lennon Road, Lennon, approximately three miles north of I-69. This is a rural site surrounded primarily by farm land.

**Facility Description:**

Venice Park RDF is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) landfill. A “Municipal Solid Waste landfill” or a “Type II landfill” according to Act 451, Part 115, Solid Waste Management states: A landfill which receives household waste, incinerator ash or sewage sludge and which is not a land application unit, surface impoundment, injection well, or waste pile.

A municipal solid waste landfill also may receive other types of solid waste, such as commercial waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial waste. Such a landfill may be publicly or privately owned.

Natural biological processes occurring in landfills transform the waste’s constituents producing leachate and landfill gas. Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas consists mainly of methane (CH<sub>4</sub>), carbon dioxide (CO<sub>2</sub>), and nonmethane organic compounds (NMOC).

An active landfill gas collection system has been installed to collect the landfill gas. This system utilizes gas mover equipment to rout the collected gas to the gas-to-electric plant. Landfill gas produced from the landfill is used to fuel ten (10) reciprocating internal combustion engines. Each engine turns a crankshaft that spins a generator’s rotor in an electromagnetic field, generating an electric current that can be used for electricity. WM owns two engines (Engines 1 and 2) which were permitted as a “like-kind” replacement on PTI 166-11. NANR owns eight engines (Engines 3 through 10), two of which (7R and 8R) were replaced with newer engines under PTI 123-11A. When the landfill gas is not routed to the engines, such as during engine maintenance, it is burned in an open flare owned by WM. The open flare is used as a back-up control device to combust the landfill gas when the internal combustion engines combustion engines are not operating.

**Regulatory Overview:**

Venice Park RDF is currently a major Prevention of Significant Deterioration (PSD) source due to the potential to emit of greater than 250 tons per year (tpy) of any regulated air contaminant. Potential

emissions of CO at this facility are greater than 250 tpy. The facility is also major for hazardous air pollutants (HAPs) with the potential to emit in equal or greater quantities of 10 tpy of any single HAP and 25 tpy of aggregate HAPs. The potential to emit of GHG in carbon dioxide equivalents (CO<sub>2</sub>e) is 188,578 tpy. CO<sub>2</sub>e is a calculation of the combined global warming potentials of six GHGs: CO<sub>2</sub>, CH<sub>4</sub>, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The facility is subject to the Title V - Renewable Operating Permit Program, and also the following federal regulations for air pollutants as discussed below.

40 CFR 60, Subpart Cc, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills - The following three conditions apply: (1) The landfill has accepted waste at any time since November 8, 1987; (2) The landfill has a design capacity greater than or equal to 2.5 million megagrams (Mg) and 2.5 million cubic meters; and (3) The landfill has a NMOC emission rate of 50 Mg per year or more. } NA -  
} JLB

40 CFR 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills - The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. The landfill gas collection and control system are subject to the requirements of Subpart WWW.

40 CFR 60, Subpart JJJJ, Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE) - The provisions of this subpart apply to SI ICE that commence construction (ordered) after June 12, 2006. Four NANR engines 7R, 8R, 9, and 10 are subject to Subpart JJJJ.

40 CFR 61, Subpart M, Standards of Performance for Asbestos – The facility occasionally receives asbestos containing material for proper disposal.

40 CFR 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills - This subpart requires all subject landfills to meet the requirements of 40 CFR 60, Subpart Cc or WWW. This subpart also requires such landfills to meet the startup, shutdown, and malfunction (SSM) requirements of 40 CFR 63, Subpart A, General Provisions and provides that compliance with the operating conditions shall be demonstrated by parameter monitoring results that are within the specified ranges. It also includes additional reporting requirements.

40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) – This subpart establishes national emission limitations and operating limitations for HAPs emitted from stationary RICE located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations. NANR engines 3, 4, 5, 6, 7R, 8R, 9, and 10 are subject to Subpart ZZZZ.

The following is a list of emission units/flexible groups that are listed in the permits for Venice Park RDF:

ROP No. MI-ROP-N5910-2010 (Section 1):

EU / FG; Description Process Equipment & Control Devices); Installation Date/Modification Date; Federal Standards

EULANDFILL; This emission unit represents the general Municipal Solid Waste (MSW) Landfill; 12/13/95; 40 CFR 60: Subparts Cc and WWW, 40 CFR 63: Subpart AAAA

EUACTIVECOLL This emission unit represents the active landfill gas collection system at the landfill that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. 12/13/95 40 CFR 60: Subparts Cc and WWW,

40 CFR 63: Subpart AAAA

EUTREATMENTSYS Processing equipment that treats collected landfill gas for subsequent sale or use. 12/13/95 40 CFR 60: Subparts Cc and WWW, 40 CFR 63: Subpart AAAA

EUOPENFLARE Open flare is an open combustor without enclosure or shroud. 12/13/95 40 CFR 60: Subparts Cc and WWW, 40 CFR 63: Subpart AAAA

EUASBESTOS Any active or inactive asbestos disposal site. 1/01/81 40 CFR 61: Subpart M

FGCOLDCLEANER Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 281

(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.  
 FGRULE290 Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

**ROP No. MI-ROP-N5910-2010 (Section 2):**

**EU / FG; Description (Process Equipment & Control Devices); Installation Date/Modification Date; Federal Standards**

**EUTREATMENTSYS** Processing equipment that treats collected landfill gas for subsequent sale or use. 12/13/95 40 CFR 60: Subparts Cc and WWW, 40 CFR 63: Subpart AAAA

**EUNANRENGINE3** Caterpillar 3516 landfill gas-fired reciprocating engine 1/01/2005 40 CFR 63: Subpart ZZZZ

**EUNANRENGINE4** Caterpillar 3516 landfill gas-fired reciprocating engine 1/01/2005 40 CFR 63: Subpart ZZZZ, "new"

**EUNANRENGINE5** Caterpillar 3516 landfill gas-fired reciprocating engine 1/01/2005 40 CFR 63: Subpart ZZZZ

**EUNANRENGINE6** Caterpillar 3516 landfill gas-fired reciprocating engine 1/01/2005 40 CFR 63: Subpart ZZZZ, "new"

**FGENGINES - EUNANRENGINE3 EUNANRENGINE4 EUNANRENGINE5 EUNANRENGINE6** Four Caterpillar 3516 landfill gas-fired reciprocating engines.

**PTI 166-11:**

**EU / FG; Description (Process Equipment & Control Devices); Installation Date/Modification Date; Federal Standards**

**EUOPENFLARE** Open flare. September 2001 /5/8/2012 40 CFR 60: Subparts Cc and WWW,40 CFR 63: Subpart AAAA

**EUWMENGINE1** An 800 kW (1148 HP) CAT G3516 LE landfill gas generator engine, manufactured in 1999. 2005 /

5/8/2012 (replaced 6/2014) 40 CFR 63: Subpart ZZZZ

**EUWMENGINE2** An 800 kW (1148 HP) CAT G3516 LE landfill gas generator engine, manufactured in 1993. 2005 /

5/8/2012 40 CFR 63: Subpart ZZZZ

**FGENGINES1-2 -EUWMENGINE1, EUWMENGINE2** Two (2) Caterpillar G3516 LE 800 kW (1,148 HP) landfill gas generator engines. NA

**PTI 123-11A:**

**EU / FG; Description (Process Equipment & Control Devices); Installation Date/Modification Date; Federal Standards**

**EUNANRENGINE3** An 800 kW (1148 HP) CAT G3516 LE landfill gas generator engine, manufactured in Oct. 2000. 2005 40 CFR 63: Subpart ZZZZ

**EUNANRENGINE4** An 800 kW (1148 HP) CAT G3516 LE landfill gas generator engine, manufactured in July 2005. 2005 40 CFR 63: Subpart ZZZZ, "new"

**EUNANRENGINE5** An 800 kW (1148 HP) CAT G3516 LE landfill gas generator engine, manufactured in May 2001. 2005 40 CFR 63: Subpart ZZZZ

**EUNANRENGINE6** An 800 kW (1148 HP) CAT G3516 LE landfill gas generator engine, manufactured in July 2007. 2005 or 2007? 40 CFR 63: Subpart ZZZZ, "new"

**EUNANRENGINE7R** A 1600 kW (2242 HP) CAT G3520C landfill gas generator engine, will be manufactured after 2012. Equipped with an electronic air to fuel ratio controller. 2014 40 CFR 60: Subpart JJJJ, 40 CFR 63: Subpart ZZZZ, "new"

**EUNANRENGINE8R** A 1600 kW (2242 HP) CAT G3520C landfill gas generator engine, will be manufactured after 2012. Equipped with an electronic air to fuel ratio controller. 2014 40 CFR 60: Subpart JJJJ, 40 CFR 63: Subpart ZZZZ, "new"

**EUNANRENGINE9** A 1600 kW (2233 HP) CAT G3520C landfill gas generator engine, manufactured in 2011. Equipped with an electronic air to fuel ratio controller. 5/8/2012 40 CFR 60: Subpart JJJJ, 40 CFR 63: Subpart ZZZZ, "new"

**EUNANRENGINE10** A 1600 kW (2233 HP) CAT G3520C landfill gas generator engine, manufactured in 2011. Equipped with an electronic air to fuel ratio controller. 5/8/2012 40 CFR 60: Subpart JJJJ, 40 CFR

**63: Subpart ZZZZ, "new"**

**FGENGINES3-6 – EUNANREENGINE3, EUNANREENGINE4, EUNANREENGINE5, EUNANREENGINE6 Four (4) Caterpillar G3516 LE 1148 HP landfill gas fueled generator engines.**

**FGENGINES7R-10 – EUNANREENGINE7R, EUNANREENGINE8R, EUNANREENGINE9, EUNANREENGINE10 Four (4) Caterpillar G3520C landfill gas fueled generator engines.**

**Brief History:**

Consent Order No. 30-2013 was entered on 1/28/2014 to resolve exceedances of permitted formaldehyde emission limits on NANR engines. PTI 123-11A was issued to NANR for replacement of Engine 7 (CAT 3516) and Engine 8 (CAT 3512) with engines 7R (CAT G3520C) and 8R (CAT G3520C). The PTI contains testing requirements for CO, NOx, VOC, PM10, PM2.5, and formaldehyde, as appropriate, for individual engines and/or representative engines. So far compliance has been demonstrated and the case is considered resolved.

**MAERS Emission Totals for the 2014 Reporting Year:****EULANDFILL:**

**NMOC – 13.7 tpy**

**PM10, filterable – 10.2 tpy**

**EUOPENFLARE:**

**CO – 0.05 tpy**

**NOx – 0.02 tpy**

**PM10/2.5, primary – 0.001 tpy**

**SO2 – 0.01 tpy**

**VOC – 0.001 tpy**

**WM Engines 1 and 2:**

**CO – 35.9 tpy**

**NOx – 24.6 tpy**

**PM10, filterable – 1.4 tpy**

**SO2 – 1.2 tpy**

**VOC – 7.3 tpy**

**NANR Engines 3 through 10:**

**CO – 162.7 tpy**

**NOx – 63.5 tpy**

**PM10, filterable – 11.1 tpy**

**SO2 – 4.1 tpy**

**VOC – 14.8 tpy**

**Arrival:**

AQD staff (Dan McGeen and Julie Brunner) noted upon approaching the facility, faint septic / landfill odors directly north of the active portion of the landfill at ~9:21 AM. The odor intensity was estimated between 2 – 3 from the driveway of the fire station across from the facility. A drive was taken around the facility and on Lennon Road just across from the east end of the landfill, a faint garage odor from 0 – 1 in intensity was noted. The wind was out of the south and temperatures was ~60°F.

AQD staff arrived at the WM office at ~9:35 AM. A pre-inspection meeting was conducted with Ms. Lori Winters (WM Compliance Manager) and Mr. Tony Lindner (WM RE Plant Manager). Briefly discussed were the odors noted upon approaching the facility. WM staff stated that the leachate system clean-out was happening that day so manholes could be open. Also, Monday mornings they strip off the cover from the working face of the landfill and odors could occur before 9:00 AM.

The DEQ brochures "Environmental Inspections: Rights and Responsibilities" and the new Boiler MACT brochure were briefly discussed. Lori Winters is familiar with the inspection process. Tony Lindner is a new WM employee and this was his first AQD inspection. Processes that the Boiler MACT covers were

discussed and any boilers the facility has on-site are electric. There are some propane-fired space heaters that are exempt per Rule 282(b)(i) and these would not be subject to the Boiler MACT either. Lori informed us that the ROP semi-annual reporting was in the mail. A discussion of landfill operations and gas plant operations was conducted prior to going out to inspect the facility.

Cell 6 is currently the active landfill cell and horizontal collectors have been installed in it. There are plans to install vertical collectors in Cell 6. There is approximately 30 years of operating life (space) in the landfill. WM does own property to the south of the active landfill.

The landfill accepts yard waste. The yard waste is piled up in the south east corner of the property and used for alternative daily cover. No active composting is done at the facility.

Solidification of non-hazardous liquid waste with ash from Genesee Power Station and automotive shredder residue (fluff) prior to disposal in the active landfill cell is done on-site. This process is not considered to emit air contaminants and is therefore not regulated by AQD. The types of non-hazardous liquid waste that is accepted is paint sludge and industrial wastewater.

The older, capped area of the landfill is no longer producing gas or is having gas quality issues. A letter dated July 6, 2015 was sent to request a higher operating value (variance) for two gas wells, EW15 and 17R, pursuant to 40 CFR 60.755(a)(5). A copy of the letter was obtained to follow up on upon return to the office. The variance request was for a higher oxygen (O<sub>2</sub>) level which was being reported as a deviation.

Surface scans of the landfill are done quarterly as required by NSPS and the ROP. The gas collection and control system (GCCS) plan includes the routes for surface scans and closure plans. The NSPS requires that wellheads on collection systems operate at below required temperatures and O<sub>2</sub> levels. Requests for variances from operating parameters for specific wells could be made as the gas quality decreases in wells. Requests could be made to abandon or decommission wells but they are having trouble with off-site migration.

Leachate from the collection system on the landfill goes to Genesee County, Montrose wastewater treatment plant.

The facility accepts both friable and non-friable asbestos. Friable asbestos is buried as soon as possible. The location of the friable asbestos is plotted and gas collection systems are not installed in areas where this has been buried. Non-friable asbestos can be put into the working face of the landfill. Asbestos comes in with a manifest (waste shipment record) and the requirements of 40 CFR 61, Subpart M are followed.

There are two parts washers (cold cleaners). One is located in the shop and the other in the gas plant. These are included as FGCOLDCLEANER in the ROP. Any equipment operating under a Rule 290 exemption has been removed from the facility.

For the WM gas plant, the last "like-kind" engine replacement or engine swapping was for EUWMENGINE1. Notification of this action was provided to Dan McGeen via an email dated June 13, 2014. All supporting documentation for this action should be maintained on-site. AQD staff did not request to view it during this inspection. WM staff thought that "like-kind" engine replacements may have been performed 2 to 3 times for each of the two WM engines.

The landfill gas flare is strictly used as backup to the gas plant engines. If the engines aren't operating, then the flare will operate.

The following records were requested during the inspection:

1. The Total Flow Daily Volume Report for the month of August.
2. A landfill gas analysis.
3. The 12-month rolling MMBtu data for WM Engines 1 and 2.

The drive around the operations of the landfill was done with Mr. John Gall (WM District Manager) and Lori Winters. Water trucks were observed around the landfill operations, and there was evidence of water application on the roads. We drove first around the capped area of the landfill. The two gas wells, EW15 and 17R, that the operating variance was requested for were pointed out. The areas of off-site gas migration were also pointed out.

Two diesel tanks to refuel off-road vehicles were noted. These are occasionally moved around the landfill operations for refueling of vehicles.

The solidification process was inspected on the drive through. A couple of Young's Environmental trucks were pulled up to the process, but no waste solidification was actively occurring. The solidification process is a metal vault that is buried in the trash. When not in use, the vault is filled with solids (ash or fluff). Solids were being moved into the vault during the inspection. No air emissions of any kind were noted from the process.

A drive was taken around to the working face of the landfill. It was quite odoriferous. On Mondays, wastewater treatment sludge from municipalities is sent to the landfill. This could explain some of the off-site odors that were detected when Dan and I arrived at the facility. Leachate cleanout lines and piping were pointed out while finishing the drive around the landfill and on the way to the gas plant.

The gas plant consists of two buildings: the east and west plant. The west plant has two engines, EUWMENGINE1 and EUWMENGINE2 owned by WM, the landfill (LF) gas flare, and EUNANRENGINE3 owned by NANR. The west plant was constructed in the 1992 to 1993 timeframe and EUNANRENGINE3 was added in 2001 according to WM staff.

The gas is treated prior to combustion in any engine. Permit conditions for the gas treatment system are in the ROP. Moisture is removed from the LF gas and the gas is filtered in order to not damage the engines. The LF gas flare was not operating but was on standby. EUWMENGINE1 and EUWMENGINE2 were operating and EUNANRENGINE3 was not operating. No visible emissions were observed from the engine exhaust stacks. The stacks did have a bit of a sway due to wind and each stack had a muffler/silencer.

The operating data for EUWMENGINE1 and EUWMENGINE2 is a combined readout. The facility divides the number by two if both engines are operating at the same time. The following data from the digital meters were recorded at the time of inspection:

Combined LF gas fuel flow to EUWMENGINE1 and EUWMENGINE2 = 586.7 scfm

Landfill gas fuel flow to EUNANRENGINE3 = 0 scfm

Total gas flow for WM engines since the meter was reset = 159640 mcf

Total gas flow for EUNANRENGINE3 since the meter was reset = 53746 mcf

Total gas flow for the west plant since the meter was reset = 213385 mcf

Two stickers were on the panel noting LF gas flow prior to the meter being reset of 17178 mcf and 7863 mcf.

Total LF gas flow = 213385 mcf + 17178 mcf + 7863 mcf = 238,426 mcf

The exhaust gas temperatures of the engines are continuously measured at the outlet of the engine turbo charger. The exhaust gas temperatures at the point of discharge from the stacks will be a little lower than the engine outlets.

EUWMENGINE1 = 794 - 805°F

EUWMENGINE2 = 884 - 886°F

Tony had printed out the requested "Total Daily Volume Report" for the month of August. LF gas volume was 26996 MCF and heat input energy was 13948.9 MMBtu. These numbers matched the information that was later provided for the 12-month rolling totals. Tony showed us the computer display of the gas analysis and printed a copy upon request.

At the time of inspection, the gas content in normalized values was:

CH4 = 51.46679%  
CO2 = 39.86243%  
Nitrogen = 7.88351%  
Oxygen = 0.78727%

The east plant which is owned and operated by NANR was inspected next. NANR staff, Nate Gokey (plant operator) and Dave Terry gave the inspection tour. The east plant is comprised of the following engines: EUNANRENGINE4, EUNANRENGINE5, EUNANRENGINE6, EUNANRENGINE7R, EUNANRENGINE8R, EUNANRENGINE9, EUNANRENGINE10. The methane analyzer for the east plant was currently out for repair so NANR was using the monitor from the other plant.

The plant generally runs five engines at a time because the landfill is not producing enough gas for all NANR engines to operate at the same time. Five of the engines in the east plant were operating at the time of inspection. The following data from the digital meters were recorded at the time of inspection:

EUNANRENGINE4 = 695 – 700 kW  
EUNANRENGINE5 = 0 kW  
EUNANRENGINE6 = 711 – 717 kW  
EUNANRENGINE7R = ~980 kW (slowly bringing the engine up)  
EUNANRENGINE8R = 0 kW  
EUNANRENGINE9 = ~800 kW (slowly bringing the engine down)  
EUNANRENGINE10 = ~1500 kW (normally operates at around 1600 kW)

NANR was testing some new lubricating oil in the engines. It was taking about 4-hours to bring an engine up for a break-in period. The new oil is supposed to reduce wear on the engines. These engines can have increased wear occurs due to the presence of siloxanes in the LG gas.

AQD staff reminded NANR that formaldehyde testing is required every three years under the Consent Order. Two engines, EUNANRENGINE7R and EUNANRENGINE10, are scheduled for testing on September 30, 2015. The test plan was received on September 8, 2015. Both engines will be tested for NOx, CO, and VOC in accordance with the conditions on PTI 123-11A.

#### Departure:

There was a brief post-meeting to discuss what was observed during the inspection. No violations or concerns were identified at the time of inspection. Records not obtained during the inspection were to be emailed. AQD staff departed the facility at ~1:50 PM.

#### Records Review:

The 12-month rolling NOx emissions data for EUOPENFLARE and the MMBtu data for WM Engines 1 and 2 were sent via email on September 15, 2015.

For EUOPENFLARE, the 12-month rolling NOx emissions up to August 2015 were 0.085 tpy. The NOx limit on PTI 166-11 is 27.3 tpy. EUOPENFLARE is currently being operated well below the permit limit.

For FGENGINES1-2, the 12-month rolling MMBtu data up to August 2015 were 158,980.8 MMBtu/12-month rolling. The LF gas usage limit on PTI 166-11 is 158,832 MMBtu/12-month rolling. The 12-month rolling MMBtu data up to August 2015 for FGENGINES1-2 shows that the LF gas usage exceeds the conditions of PTI 166-11. Non-compliance with PTI 166-11 was identified during the records review.

All records obtained in the course of this compliance inspection are attached to the file copy of the report.

#### Summary:

No instances of noncompliance with the conditions of ROP No. MI-ROP-N5910-2010 and PTI 123-11A were identified. Noncompliance with the conditions of PTI 166-11 was identified. Lori Winters (WM) was notified of the noncompliance on September 24, 2015 and a Violation Notice (VN) has been sent.

An alternative operating scenario (variance) pursuant to 40 CFR 60.755(a)(5) for two (2) existing collectors identified as EW15 and 17R was approved on September 21, 2015. This approval was contingent on following the procedures in USEPA applicability determination index (ADI) Control No. 0600062 that includes the following components:

1. Nonproductive wells where oxygen concentrations do not decline to acceptable levels after more than one hour of reduced vacuum will be shut off until the gas quality recovers.
2. The monthly monitoring required by 40 CFR 60.755 will be conducted for nonproductive wells that have been shut down, but positive pressure or elevated oxygen concentrations will not be considered exceedances of the operating limits in 40 CFR 60.753.
3. If monthly monitoring indicates that pressure has built up in the nonproductive well and the oxygen concentration still exceeds five (5) percent, the well will be opened to relieve the pressure and will be shut down until it is monitored the following month.
4. If the monthly monitoring indicates that gas quality has improved (i.e. oxygen concentration has dropped below five (5) percent), the well will be brought back on line until the gas quality declines again.
5. The quarterly methane surface concentration monitoring per 40 CFR 60.755 will be conducted for wells that have been shut down. Standard remediation steps, including evaluating the need to return wells to full-time service, will be followed if exceedances of the 500 ppm methane surface concentration limit are detected.
6. Facility diagrams must be updated to indicate which wells have been shut down because landfill gas production rates are too low to permit continuous extraction.

NAME Julie T. Bumer DATE 9/28/15 SUPERVISOR B.M.