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

N557228903

FACILITY: Howell Compressor Station		**SRN / ID:** N5572
LOCATION: 3990 Crooked Lake Rd, HOWELL		**DISTRICT:** Lansing
CITY: HOWELL		**COUNTY:** LIVINGSTON
CONTACT: Ronald Hughes , Environmental Specialist		**ACTIVITY DATE:** 03/17/2015
STAFF: Brian Culham	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: The purpose of the inspection was to coordinate all existing physical installations at this source with any applicable requirements that may need to be included in the intended ROP renewal. It was also an opportunity to verify the compliance status of the source with those requirements.		
RESOLVED COMPLAINTS:		

Ralph Steinberger – Local EHS Coordinator - ralph.steinberger@energytransfer.com
Ronald Hughes – Corporate Environmental - Ronald.Hughes@energytransfer.com

The Howell Compressor Station is part of the Panhandle Eastern Pipe Line. It is a natural gas transmission and storage facility located in Section 20 of Genoa Township, Livingston County, about one mile west of Crooked Lake. Natural gas is re-injected into an underground gas reservoir for storage and is withdrawn as needed for pipeline transport. The processes are seasonal, with injection activities starting in May.

Four reciprocating internal combustion engines (RICE) run the compressors that inject the gas into the reservoir. Two are rated at 2000 HP and two at 1000 HP. Additional processes at the source include withdrawal gas heaters, a 465 HP emergency generator, and liquid storage tanks for methanol, waste water, and petroleum distillates.

The compressor engines have the potential to emit NO_x at greater than 100 tons per year; therefore Howell Compressor Station is a "Major Source" of NO_x emissions. Howell Compressor Station has obtained and must comply with the Renewable Operating Permit (ROP) MI-N5572-2010. An application for renewal of this permit was received on February 12, 2015. The permit renewal was assigned to Sebastian Kallumkal of the Southeast Michigan District Office.

On May 23, 2011, I received an e-mail indicating that formaldehyde potential to emit was greater than 10 tons per year (tpy) at this source. I had personally calculated a PTE for formaldehyde of 11.7 tpy. Howell Compressor Station is therefore a Major Source of HAPS.

A glycol dehydrator is not used at the Howell Compressor Station. Water is removed from the pipe line by a drip separator (JT). The condensate removed from the gas is stored in liquid storage tanks. Distillates can be separated from the collected material and sold for refining. Because Howell Compressor Station does not use a glycol dehydrator (the affected source in Subpart HHH) they are not subject to the requirements under MACT subpart HHHNational Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities.

MACT subpart EEEE; NESHAP for Organic Liquids Distribution (Non-Gasoline) does not apply because organic liquid distribution operations do not include the activities and equipment, including product loading racks, used to process, store, or transfer organic liquids at natural gas transmission and storage facilities, as defined in Sec. 63.1271, of subpart HHH.

Howell Compressor Station has processes subject to 40 CFR 63 Subpart DDDDD - National Emission Standards for Major Sources: Industrial/Commercial/Institutional Boilers and Process Heaters. An Initial Notification was received on May 20, 2013. Howell Compressor Station also has processes subject to 40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

It is my understanding that no processes at the facility are presently subject to any NSPS requirements including; Storage Vessels for Petroleum Liquids subparts K, Ka, and Kb; Stationary Gas Turbines subpart GG; and Stationary Compression Ignition Internal Combustion Engines subpart IIII.

No.	Emission Unit or Flexible Group	Description	Permit Number or Exemption	Comp. Status
1	FGENGINES	4 - RICE 4 stroke, lean burn spark ignition natural gas	MI-ROP- N5572-2010 40 CFR 63 subpart ZZZZ Grandfathered (Rule 201)	C C C
2	FGRULE290 EUMETHANOLTNK-1 EUMETHANOLTNK-2	One Methanol Storage Tank and a Truck mounted Tank	MI-ROP- N5572-2010 Rule 284(n) Rule 290	C C C
3	FGCOLDCLEANERS	Safety-Kleen	MI-ROP- N5572-2010 Rule 281(h)	C C
4	Emergency Generator	No. 2 diesel fuel fired, 465 HP emergency use compression ignition engine	Rule 282(b)(ii) 40 CFR 63 subpart ZZZZ	C C
5	FGWB-HTR	EUWB-HTR-1, EUWB-HTR-2, EUWB-HTR-3, 3 - 10 MMBTU Withdrawal Gas Heaters	Rule 282(b)(i) 40 CFR 63 subpart DDDDD	C C
6	EUPLANT-HTR-1	A 3.5 MMBTU gas fired comfort heater.	Rule 282(b)(i) 40 CFR 63 subpart DDDDD	C C
7	FGTNKS	5 Condensate Tanks TNK7 – TNK11	Rule 284(e)	

I arrived in the area at 10:30 am. I drove around the area, but did not identify any odors that would be associated with the source.

I enter the plant at 11:00 am as scheduled the week before. S. Kallumkal of the Southeast Michigan District met me there. We both met with Ronald Hughes – Corporate Environmental. R. Hughes has an office that is located Out-of-State. The scheduling accommodated his need to meet with both S. Kallumkal and myself while he was in Michigan. The purpose of the inspection was to coordinate all existing physical installations at this source with any applicable requirements that may need to be included in the intended ROP renewal. It was also an opportunity to verify the compliance status of the source with those requirements.

1. FGENGINES

The four compressor engines were installed in the 60's and have been considered grandfathered from the need to obtain an air use permit. S. Kallumkal identified that one of the units was installed sometime in 1967, which may or may not have been prior to the August 15 promulgation date. S. Kallumkal later determined that during that same time period, a Rule 36 existed, which exempted all internal combustion engines from the permit process. If the unit was not grandfathered at the time of its installation it was certainly installed under an existing exemption.

The units were not operating during my inspection. Seasonally there is little need for compressor operation in February and March. I was shown that Units #1-#3 have electronic data collection systems, which, among other things, record fuel usage. The fuel use for Unit 4 is determined by subtracting the other three unit's fuel data from the total metered value. Electronics will be fitted to the #4 unit in the upcoming year.

Records of gas consumption are being maintained and were submitted to me via MAERS. All gas is pipeline quality.

2014 Gas Consumption			
Engine ID	HP Rating	Hours	mcf
Engine 1601	1000	3503.0	29,937.7
Engine 1602	1000	2024.4	15,738.0
Engine 1603	2000	3297.5	53,994.4
Engine 1604	2000	2901.3	45,823.9
Total		**11726.2**	**145,494.0**

The reciprocating engines are all 4 stroke, lean burn (4SLB) technology, combusting only natural gas as fuel. The engines are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, subpart ZZZZ. The subpart 40 CFR 63.6600(c) states that if you own or operate an existing 4SLB stationary RICE with a site rating of more than 500 brake HP located at a **Major Source of HAP emissions**, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart.

I identified the exhaust stacks for the 4 compressor engines. The exhaust stacks all discharged unobstructed vertically upwards.

2. FGRULE290 or EUMETHANOLTNK-1 and EUMETHANOLTNK-2

A double walled skid mounted horizontal storage tank rated at 792 gallons in capacity is used to store methanol. A second tank is mounted on a truck and used as a delivery vessel. The truck mounted tank was stated to be 520 gallons. A third tank rate at 790 gallons is maintained off-site at Lucy Rd. which is not considered a part of this stationary source. The methanol is transported off site and injected into the pipeline as part of a repair procedure. It is used to keep water from freezing while it is removed from the pipeline.

Rule 284(n) exempts methanol tanks less than 30,000 gallons in size from the Rule 201 requirement to obtain an air use permit. Rule 284(n) was promulgated in 2008. Prior to promulgation of Rule 284(n), Rule 290 was used to exempt the methanol containers. A Rule 290 flexible group has been maintained in the ROP for that purpose. Howell Compressor Station has traditionally kept the appropriate Rule 290 records. Methanol has an ITSL of 3250µg/m^3; therefore the 290 emission limit is 1000 #/mo.

S. Kallumkal and I discussed the need to maintain the FGRULE290 table in the ROP with R. Hughes. We agreed that it was not necessary to continue to keep records of the methanol use for Rule 290 when the tanks are 284(n) exempt. FGRULE290 may be removed from the next ROP.

Records of methanol use are being maintained.

2014 Methanol Emission Records				
Tank	**Size in gal.**	**Material**	**Uncontrolled Emission #/yr.**	**Monthly Limit #/mo.**
EUMETHANOLTNK-1	**792**	**methanol**	**10.51**	**1000**
EUMETHANOLTNK-2	**520**	**methanol**	**2.45**	**1000**

3. FGCOLDCLEANERS

The cold cleaner that I saw had an air/vapor interface of about 6 sq. ft. This is less than the 10 sq. ft. maximum of the Rule 281(h) exemptions for cold cleaners. There was no heating device. The cold cleaner is exempt from the Rule 201 need to obtain an air use permit.

The cleaning solvent used in the cleaner was Safety-Kleen 105 solvent supplied and disposed of by Safety-Kleen. Safety-Kleen 105 solvent is 99% recycled petroleum distillates with less than 0.2% tetrachloroethylene (perc) and trichloroethylene (TCE). The vapor pressure of the solvent is reported at 0.02 psia @ 100°F.

The cover on the device I inspected was closed and had procedures posted on the outside. Under the cover was an area to rack the parts for drainage. There was no hood or ventilation in the area for venting vapors to the outside air.

4. Emergency Generator

This emission unit is not included in the ROP. An emergency electrical generator powered by a No. 2 diesel fuel fired, 465 HP (about 1.2 mmbtu/hr), compression ignition (CI) engine was installed in about 2006. Rule 282(b)(ii) exempts from air use permit requirements any fuel burning units using No.2 fuel oil that generate electric power and are less than 20 mmbtu/hr in rating.

The generator engine is subject to 40 CFR 63 subpart ZZZZ, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines. For stationary RICE with a

site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if construction of the stationary RICE commenced before June 12, 2006. I examined a purchase order that indicated that the unit was delivered on site 8/26/2005. According to 40 CFR **63.6595,** an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, must comply with the applicable emission limitations and operating limitations of subpart ZZZZ no later than May 3, 2013. The requirements of 40 CFR 60 subpart IIII NSPS do not apply because the generator was ordered June 13, 2005, before the July 11, 2005 requirement date.

According to 40 CFR 63.6602; if you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you.

The Table 2c requirements for **emergency use** are:
a. Change oil and filter every 500 hours of operation or annually, whichever comes first.
b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]

Table 2c did not include a numerical emission limitation for the emergency use category.

For an emergency generator, use in an emergency situation is unlimited, however specific non-emergency use, such as maintenance run in, is limited to 100 hours annually. The hour meter on the generator showed 315.6 hours or 51.1 hours of use since my last inspection of 6/18/2013, about 21 months ago. The generator is being operated as an emergency use unit.

R. Hughes stated that Howell Compressor Station kept maintenance records on the generator as required by the subpart. I was given records indicating service on 10/20/14, including belt changes.

5. FGFGWB-HTR

EUWB-HTR-1, EUWB-HTR-2, EUWB-HTR-3, are 10 MMBTU withdrawal gas heaters. They were identified in a 2013 notification as being subject to the MACT subpart DDDDD. The compliance date is January 2016. The heaters are only used in the winter during the withdrawal process. Because the operational time of the heaters is less than 10% of maximum, S. Kallumkal is looking into restricting operational hours so that a limited use designation can be granted to the units. This could eliminate unnecessary oil changes.

6. EUPLANT-HTR-1

The unit is a 3.5 MMBTU gas fired furnace for supplying comfort heat in the compressor building. It was identified in a 2013 notification as being subject to the MACT subpart DDDDD. The compliance date is January 2016.

7. FGTNKS

I identified 5 storage tanks. I estimated that they were around 10,000 gallons capacity in size. The tanks contained the condensate from the pipeline drip separator, waste water, or the separated distillates from the condensate. The separated distillates are sold for refining and the waste water is disposed of properly..

The vessels are exempt from the Rule 201 air use permit requirement by the Rule 284(e) exemption.

I did not identify any violations as a result of the inspection and subsequent record review. I left Howell Compressor Station at 1:30 pm.

NAME _____ DATE 3/24/2015 SUPERVISOR _____