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

N339241129

FACILITY: DTE Gas Company-Taggart Compressor Station		**SRN / ID:** N3392
LOCATION: 10450 NEVINS ROAD, SIX LAKES		**DISTRICT:** Grand Rapids
CITY: SIX LAKES		**COUNTY:** MONTCALM
CONTACT: Mitch Steele , Supervisor - Transmission Operations		**ACTIVITY DATE:** 08/09/2017
STAFF: Chris Robinson	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: FY '17 on-site inspection to determine the facility's compliance status with ROP MI-ROP-N3392-2015 and other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

DTE Gas Company Taggart Compressor Station (Taggart) is located at 10450 Nevins Road in Six Lakes, MI. AQD staff Chris Robinson (CR) and Heidi Hollenbach (HH) arrived at this location at approximately 9:30 am on August 9, 2017 for the purpose of conducting a scheduled unannounced site inspection to determine compliance with Renewable Operating Permit (ROP) No. MI-ROP-N3392-2015 and any other applicable air rules and regulations. CR and HH met with Mr. Mitch Steele, Transmission Operations Supervisor, announcing intent to inspect and providing proper identification. Mr. Steel generously provided AQD staff with a tour of the facility as well as pertinent compliance information. Weather conditions were approximately 70°F with west-southwest winds at approximately 5mph.

CR followed up with Mr. Rob Simmons, DTE Sr. Engineer - Environmental Management and Resources, on August 11, 2017 by phone regarding boiler information and records and again in person at the AQD Grand Rapids District office on August 31, 2017. Mr. Simmons provided required 40 CFR 63 Subpart DDDDD boiler reports.

FACILITY DESCRIPTION

The Detroit Energy Company owns and operates several facilities in Michigan used for natural gas transmission and storage. The Taggart facility is used to maintain pipeline pressure for transporting sweet natural gas to storage wells for temporary storage and for transporting natural gas to storage and/or distribution facilities located throughout Michigan. This facility consists of several gas scrubbers (also considered separators or knock-out pots), a Sorbead dehydrator with boiler (non-glycol based unit), twenty-one sweet natural gas fired only reciprocating engines and auxiliary equipment. The facility consists of two sections, "Plant 1" contains 11 engines (2-1,000hp and 9-2,000hp) built in approximately 1955 and "Plant 2" contains the remaining ten (10) 2,000hp engines built in approximately 1959. Taggart employs approximately 28 staff.

REGULATORY REQUIREMENTS

Taggart is subject to the following air rules and regulations discussed in detail below:

Renewable Operating Permit (ROP):
- MI-ROP-N3392-2015

New Source Performance Standards (NSPS):
- **40 CFR Part 60 Subpart Dc**, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

National Emission Standards for Hazardous Air Pollutants (NESHAPS):
- **40 CFR Part 63, Subparts A and DDDDD**, NESHAP for major sources with industrial, commercial, and institutional boilers and process heaters.

- **40 CFR Part 63 Subpart HHH**, NESHAP for natural gas transmission and storage facilities.

***Note** - All current, on-site regulated compressor engines were installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. In addition, Taggart is not currently subject to the Prevention of Significant Deterioration (PSD) regulations (Act 451 or 40 CFR 52.21), because the process equipment was constructed/installed prior to the promulgation date of the PSD regulations (June 19, 1978). Any future modifications, reconstruction or construction may trigger an NSR or PSD review.

***Note** - None of the engines are subject to the federal NESHAP for Reciprocating Internal Combustion Engines (RICE MACT), 40 CFR Part 63, Subpart ZZZZ, based on size (>500hp) and vintage (installed before 2002). Any future modifications, reconstruction or construction may trigger RICE MACT applicability.

COMPLIANCE EVALUATION

➢ **MI-ROP-N3392-2015**

Taggart is considered a "Major" source because the facility's potential to emit exceeds 100tpy of oxides of nitrogen (NOx) and 10tpy for a single HAP and/or 25tpy of all HAPs combined. Therefore, the facility is subject to 40 CFR Part 70, which is the basis for the facility's ROP. The following General Statements apply to either all or multiple Flexible Groups of this ROP:

- Taggart submitted a 2016 Annual Certification as well as Semi-annual Reports on 9/15/2016 & 3/9/2017 as required in ROP special conditions, VII.1-3 of Flexible Groups FGINGERSOLLRAND, FGBOILERS and FGRULE285(mm). No deviations or issues were reported.

- As discussed with Mr. Steele, all emission units located at this facility are natural gas fired only and all records are maintained for a minimum of 5-years.

- No visible emissions or significant odors were observed during this inspection.

FLEXIBLE GROUP FGINGERSOLLRAND

As discussed in the Regulatory Requirements section of this report, the engines are considered "grandfathered" from NSR permitting requirements and currently not subject to any RICE MACT or PSD requirements. The facility is required by their ROP to monitor and record the monthly natural gas consumption rate. The facility continuously monitors fuel consumption rate for each engine as well as maintaining a monthly log of fuel meter readings. Records were provided and are included in **Attachment A**. The facility was currently "free flow" injecting natural gas into the underground reservoir known as the Michigan Stray formation, for storage. Free flow means that the pressure created in the system creates the required differential pressure necessary to create flow naturally. Therefore, none of the engines were operating or necessary to operate during this inspection.

Emission Unit ID	Emission Unit Description	Installation Date/ Modification Date
EUENGINE101 & 102	Two (2) Ingersoll Rand Compressor Engines 1,000 HP natural gas fired reciprocating engines used to drive natural gas pipeline compressors	1955/NA
EUENGINE103 - 111	Nineteen (19) Ingersoll Rand Compressor Engines, 2,000 HP natural gas fired reciprocating engines used to drive natural gas pipeline compressors	
EUENGINE201 - 210		1959/NA
EUAUX1	Waukesha 925 HP natural gas fired emergency engine, 4SLB	Pre-1960/NA
EUAUX2	Waukesha 758 HP natural gas fired emergency engine, 4SLB	

FLEXIBLE GROUP FGBOILERS

This facility has seven (7) natural gas-fired boilers (EUPLT1BLR1, EUPLT1BLR2, EUPLT2BLR1, EUPLT2BLR2, EUP2BLR, EUSHOPBLR and EUDEHYREGENHTR) exempt from the rules of 201 per Rule 282(2)(b)(i) but subject to the NESHAPS for boilers/process heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD. None of these boilers were operating during this inspection.

Emission Unit ID	Emission Unit Description	Installation Date/ Modification Date	Initial Notification Date	Energy Assessment / Initial Tune-up Date	Tune up Required	Date of Tune-up
EUPLT1BLR1 EUPLT1BLR2	Plant1 Boilers – 0.375 MMBtu/hr	1/1/2007/NA	1/2/2013	7/27/2015 / 12/7/2015	5 years (61 mths)	Due in 2021
EUPLT2BLR1 EUPLT2BLR2	Plant2 Boilers – 0.375 MMBtu/hr					
EUP2BLR	Plant 2 Boiler – 2.51 MMBtu/hr	1/1/2000/NA		7/27/2015 / 10/15/2015		Due in 2020
EUSHOPBLR						

	Shop Boiler – 2.51 MMBtu/hr					
EUDEHYREGENHTR	12.9 MMBtu/hr heater			7/27/2015 / 9/9/2015	Annually (13 mths)	11/8/2016

- Process/Operational Restrictions
The facility has completed one-time energy assessments and initial and subsequent tune-ups as required for the boilers. Copies of these reports were provided by Mr. Simmons and are now included in the site file. Tune-ups for these boilers, except for EUDEHYREGENHTR, are required to be conducted every five (5) years because they are rated at less than 5 MMBtu/hr. Boiler EUDEHYREGENHTR tune-up is conducted annually because it has a rating of greater than 10 MMBtu/hr. The last tune up conducted was for EUDEHYREGENHTR on 11/8/2016.

The 10.8MMBtu/hr MAXON dehydration unit (EUDEHYREGENHTR), installed in 1955 and referenced in the facility's one-time energy assessment and tune-up reports was replaced in 2000 with a 12.9MMBtu/hr unit. This change was made prior to the incorporation of the NESHAP Subpart 5(D) conditions in the ROP. The AQD was not aware of this change because this unit is exempt per Rule 282(2)(b) and the facility did not provide a Rule 215 Notification of Change form (M-001) for the ROP. This unit now appears to be subject to the NSPS for boilers between 10MMBtu/hr and 100MMBtu/hr installed after June 9, 1989 promulgated in 40 CFR Part 60 Subpart Dc which requires an initial notification and fuel monitoring. CR informed Mr. Simmons of these requirements and provided the notification form via email.

Although the facility has met the NESHAP Subpart 5(D) one time energy assessment and annual tune-up requirements, the validity of the reports are in question because they appear to reference an old and removed 10.8MMBtu boiler as well as stating that this boiler utilizes glycol, which it does not. Therefore, CR has requested that the facility conduct a new energy assessment and tune-up on the dehydration system boiler (EUDEHYREGENHTR) and submit reports to AQD by October 22, 2017.

Boiler Maintenance is conducted as needed to ensure the units remain in good working order. Maintenance records were attached to each boiler and accessible.

- Reporting
The facility submitted a Notification of Compliance Status report on March 9, 2017, as required by special condition FGBOILERS VII.4. Burner inspection for EUDEHYREGENHTR was conducted on October 12, 2016 and the most recent tune-up for this unit was conducted on November 8, 2016. No issues were noted.

Per discussions with Mr. Simmons and a records review, the facility's one-time boiler energy assessment and tune-up reports have been completed and submitted to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) as required in FGBOILERS special condition VII.5. Although this condition only requires report submittals to EPA through CEDRI, general condition no. 23 of ROP MI-ROP-N3392-2015 requires all reports to also be submitted to the AQD certified. CR informed Mr. Simmons of this requirement and requested missing reports since issuance of the facility's ROP renewal (MI-ROP-N3392-2015). Mr. Simmons met with CR on August 31, 2017 at the Grand Rapids District office and provided requested reports, which are on-file at the AQD not attached to this report.

- Other Requirements
Based on discussions with Mr. Steele and Mr. Simmons as well as a subsequent records review, the facility met compliance with NESHAP Subpart 5(D) by January 31, 2016. Tune-ups are conducted as required by special condition FGBOILER IX.4.a-f of this Flexible Group to demonstrate continual compliance with this rule.

FLEXIBLE GROUP FGRULE285(mm)
This flexible group includes any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 285(mm). This rule requires the facility to report venting of natural gas as follows:

- Notify AQD prior to scheduled venting if amount is greater than 1MMft3 due to Maintenance or relocation of transmission and distribution systems.

- Notify the pollution emergency alert system within 24 hours per emergency event if amount is greater than 1MMft3.

Mr. Steel was aware of these reporting requirements and confirmed that the last greater than 1MMft3 venting event occurred in 2014 (see Compliance Activity Report CA_N339227120). Venting records were provided (**Attachment B**) confirming recent venting events were less than 1MMft3.

➢ **MISCELLANEOUS**

EXEMPTIONS
The facility utilizes a Smartwasher parts washing system, manufactured by Chemfree. Per Chemfree's website (www.chemfree.com) the cleaner used in this system is an aqueous based degreasing solution called "Ozzyjuice" with little VOC's and contains safe, naturally occurring microbes. The microbes bioremediate the cleaner, as it's used, eliminating hazardous waste.

The facility provided the attached SDS (**Attachment C**) for the OzzyJuice. Based on this SDS the vapor pressure is less than 0.1 mm Hg @ 20°C. Therefore, this system appears exempt per Rule 281(2)(e).

NESHAP 40 CFR Part 63 Subpart HHH
Taggart is subject to the NESHAP for "Natural Gas Transmission and Storage Facilities promulgated in 40 CFR Part 63 Subpart HHH. Although Taggart is subject to this rule, the requirements only apply to facilities that utilize glycol dehydrators. Taggart's dehydration system is a Sorbead desiccant system that does not use glycol. The AQD received a NESHAP Subpart HHH Initial Notification on May 29, 2001.

2016 MAERS Submittal
Emission units were properly reported to MAERS. An "Emissions Comparisons–Source Totals" Report is included in **Attachment D**.

COMPLIANCE DETERMINATION
Per discussions with Mr. Simmons, the facility will submit an initial notification for NSPS Subpart Dc to the AQD as well as conduct a new energy assessment and tune-up on the boiler for the dehydration system. An Energy Assessment and tune-up report shall be submitted to the AQD no later than October 22, 2017. Based on observations, discussions and a records review, Taggart appears to be compliant with ROP No. MI-ROP-N3392-2015 and any other applicable air rules and regulations.

Attachments
A - Fuel Meter Records
B - Venting Records
C - OzzyJuice SDS
D - MAERS Report
E - Miscellaneous Records

NAME _____ DATE 9/20/2017 SUPERVISOR _____