

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

ACTIVITY REPORT: Scheduled Inspection

N558652208

FACILITY: ANR Pipeline Company Lincoln Compressor Station		SRN / ID: N5586
LOCATION: 3991 S. Hickory, LAKE GEORGE		DISTRICT: Saginaw Bay
CITY: LAKE GEORGE		COUNTY: CLARE
CONTACT: Bruce Bendes , Environmental Specialist		ACTIVITY DATE: 01/21/2020
STAFF: Meg Sheehan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection for FY20, conducted in conjunction with stack testing		
RESOLVED COMPLAINTS:		

Compliance Determination: No compliance issues were identified during this inspection.

Introduction

On Tuesday, January 21, 2020, a scheduled site inspection was conducted by AQD District staff at ANR Pipeline Company – Lincoln Compressor Station (LCS) in Lake George, Clare County. TC Energy (owner of ANR Pipeline Company) representative Bruce Bendes was onsite to answer questions and provide a tour of the facility. Records were provided by Chris Waltman, Senior Environmental Specialist with TC Energy. This inspection was conducted in conjunction with emission testing being performed on the newly installed emergency generator (EU-LI010). The facility was open and other than EU-LI010 running for the testing, no other emission units were in operation at the time of the inspection. Site inspection activities were conducted with the intent of confirming compliance with Renewable Operating Permit (ROP) No. MI-ROP-N5586-2019.

Facility Description

The LCS is a manned compressor station that sits on approximately 13 acres in a rural area surrounded by woods and gas storage fields. It is bound to the north by Ashard Road and to the south by Browns Road. Lake George is located approximately two miles north of the facility. It should also be noted the Great Lakes Gas – Farwell Compressor Station 12 (N5581) is located one half mile north of the LCS on the opposite side of Hickory Avenue.

Three two-cycle, lean burn compressor engines (FG-LIREC) are operated at the facility to compress natural gas into storage reservoirs during injection (usually warmer months) and into the pipeline during withdrawal (colder months). Depending on storage and delivery contracts, gas availability, and demand by end users, the three compressor engines may operate simultaneously, independently, or not at all. Also onsite is one emergency generator (also referred to as an APU – auxiliary power unit), one boiler, one regeneration gas heater, miscellaneous small heaters, and miscellaneous storage tanks. It should be noted there is a dehydration system onsite, but it is a dry bed system rather than a glycol system, which takes it out of consideration for a variety of regulations.

Compliance History

No recent complaints are of record for the facility. At the time of the most recent site inspection (July 25, 2018), the facility was found to be in compliance with its ROP and air rules. The facility is subject to MAERS and ROP annual and semi-annual reporting and has submitted these reports in a relatively timely manner for the past several years.

Equipment & Regulatory Information

The status of existing and new equipment at the facility is outlined in the table below. Notable changes that have occurred at the facility since the last inspection include the following: EU-LI004 was replaced by EU-LI010 in August 2019; EU-LI007 was replaced by EU-LI009 in 2018.

EU ID	Status	Description	Manufacturer	Model	Rated Capacity (hp)	Heat Input (MMBtu/Hr)
EU-LI001	Existing (1971)	Compressor engine 1	Clark	TLAD8	3,200	22.4
EU-LI002	Existing (1971)	Compressor engine 2	Clark	TLAD8	3,200	22.4

EU-LI003	Existing (1974)	Compressor engine 3	Cooper-Bessemer	16W330	8,000	55.2
EU-LI004	Removed (1974 – 2019)	Emergency generator	GE/Caterpillar	G379	330	3.2
EU-LI006	Existing (1970)	Natural gas fired boiler	Kewanee	NA	NA	3.2
EU-LI007	Removed (1970 – 2018)	Dehydration furnace	NA	NA	NA	1.1
EU-LI009	New (2018)	Regeneration gas heater	Broach	NA	NA	6.63
EU-LI010	New (2019)	Emergency generator	Caterpillar	G3412C	755	5.45

Rule 36(c) was promulgated on August 15, 1967 and exempted all internal combustion engines from the New Source Review (NSR) program. The change to that exemption and the Rule 278 exclusion were not promulgated until November 18, 1993. As a result, EU-LI001, EU-LI002, and EU-LI003 (FG-LIREC) are considered “grandfathered” and not subject to NSR permitting requirements. Therefore, there are limited requirements in the ROP for these emission units (outlined in the Compliance Evaluation section).

EU-LI006 (FG-BOILERMACTEXISTING) and EU-LI009 (FG-BOILERMACTNEW) have been identified as exempt from NSR permitting pursuant to Rule 282(2)(b)(i) – both fire natural gas and have a heat input rating less than 50 MMBtu/Hr. They are both subject to 40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT).

EU-LI010 has also been identified as exempt from NSR permitting pursuant to Rule 285(2)(g), but subject to 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT). A Rule 215(3) Notification of change was received by EGLE on July 15, 2019, and indicated the engine was scheduled to be installed on August 1, 2019. FG-RICEMACT in the current ROP was applicable to EU-LI004, which EU-LI010 replaced. In the Rule 215(3) notification, ANR provided a mark-up copy of the ROP with the revised requirements under Subpart ZZZZ and Subpart JJJJ for EU-LI010.

Compliance Evaluation

It is reported that all emission units at the source are fired on pipeline quality natural gas only.

EU-LI001, EU-LI002, EU-LI003 (FG-LIREC) – Compressor engines

The natural gas consumption rate for each engine is monitored by a flow meter, which transmits the data to the TC Energy reporting system. The data for 2018 through 2020 may be found on the “Unit Monthly Summary Report” attached to this report.

EU-LI006 (FG-BOILERMACTEXISTING) – Boiler

This emission unit is used for building heat and for fuel gas temperature regulation. An initial tune-up was required, as well as a tune-up every five years thereafter. The most recent tune-up was conducted on July 14, 2015 and was evaluated as part of the previous compliance inspection on July 25, 2018. TC Energy reported the next tune-up is scheduled for later in 2020. Records for the 2015 tune-up were readily available from facility staff.

The notification of compliance status received on September 10, 2015, indicated that the facility has complied with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10) and has had an energy assessment performed according to 40 CFR 63.7530(e).

The permittee has not requested to use an alternative to the work practice standards, and no notifications of alternative fuel use or physical changes made to the boiler have been received or reported. No reports are of record for instances when an emission limit or operating limit was not met.

At this time, it appears this emission unit is being operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

EU-LI009 (FG-BOILERMACTNEW) – Regeneration heater

This emission unit is used to regenerate the dehydrator sorbent material. An initial tune-up is not required, but

biennial tune-ups are required. The first tune-up is required to be completed no later than 25 months after the unit's initial startup, and TC Energy reported this is scheduled for later in 2020. No other compliance demonstrations/performance evaluations have been reported since the unit's startup.

The initial notification pursuant to 40 CFR 63.9(b) and 40 CFR 63.7545(b) was received by EGLE on May 7, 2019, and a copy of the notification was also readily available from facility staff. The reported compliance date for EU-LI009 was October 15, 2018.

The permittee has not requested to use an alternative to the work practice standards, and no notifications of alternative fuel use or physical changes made to the boiler have been received or reported. No reports are of record for instances when an emission limit or operating limit was not met.

At this time, it appears this emission unit is being operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

EU-LI010 – Emergency engine

This emission unit is used to produce electricity for the facility in the event of a power outage. The emission unit began operation on October 30, 2019. Prior to that, EU-LI004 ran for less than 100 hours for maintenance in 2019 before it was taken out of service to be replaced by EU-LI010. The engine specs for EU-LI010 are outlined below:

- Stroke Cycle: 4-Stroke
- Type of Burn: Lean Burn
- Rated Horsepower: 755 hp
- Heat Input: 5.45 MMBtu/Hr
- Maximum Hourly Fuel Consumption: 6,020 scf/hr
- Control Device: Catalyst

Since the initial startup of EU-LI010, it has run for a total of 39.5 hours for "other" reasons (commissioning of new APU and emissions test) and 1.5 hours for maintenance (test runs). Maintenance activities are recorded on the RICE MACT Emergency Engine Log (see document in file) along with the total running time and reason for running.

The initial notification pursuant to 40 CFR 60.4245(c) was received by EGLE on May 7, 2019, and a copy of the notification was also readily available from facility staff. This inspection coincided with the initial emissions test being conducted pursuant to 40 CFR Part 60, Subpart JJJJ on EU-LI010. The emission limits for a Stationary Emergency SI Engine ≥130 HP are outlined below, with the preliminary results from the first run of testing:

Pollutant	Subpart JJJJ Limit (ppmvd at 15% O2)	Preliminary Results (ppmvd at 15% O2)
NOx	160	143
CO	540	10
VOC	86	tbd

At this time, it appears this emission unit is being operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

Exempt Equipment

This equipment was identified as being exempt pursuant to Rule 201, 278, and 278a in the most recent ROP renewal application:

- Rule 282(2)(b)(i) – 30 heaters rated between 0.204 MMBtu/Hr and 0.004 MMBtu/hr
- Rule 284(2)(c) – Four storage tanks used to store lubricating, hydraulic, thermal oils or indirect heat transfer fluids
- Rule 284(2)(e) – One condensate storage tank less than 40,000 gallons
- Rule 284(2)(i) – Nine storage tanks less than 40,000 gallons and contents with a vapor pressure of less than or equal to 1.5 psia
- Rule 285(2)(w) – A remediation project which utilizes air stripping technology, is controlled by a catalytic oxidation system and is used exclusively for cleanup of gasoline, natural gas condensate, and crude oil spills.

Summary

At this time, the ANR Pipeline Company – Lincoln Compressor Station in Lake George, Michigan, appears to be in general compliance with MI-ROP-N5586-2019 and all applicable air rules and regulations.

NAME Meg Sheehan

DATE 2/6/2020

SUPERVISOR C. Hare