

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N558673111

FACILITY: ANR Pipeline Company Lincoln Compressor Station		SRN / ID: N5586
LOCATION: 3991 S. Hickory, LAKE GEORGE		DISTRICT: Bay City
CITY: LAKE GEORGE		COUNTY: CLARE
CONTACT: Brian Day , Area Manager, Mackinaw Area - Great Lakes Region		ACTIVITY DATE: 07/25/2024
STAFF: Rachel Benaway	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: On-site inspection to verify compliance with MI-ROP-N5586, and all applicable requirements of the Federal Clean Air Act; Article II, Part 55, of the Natural Resources and Environmental Protection Act, 1994 PA 451; and AQD Administrative Rules. The facility appears to be in compliance with all applicable regulations at this time.		
RESOLVED COMPLAINTS:		

Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff, Rachel Benaway, conducted an unannounced air quality inspection of ANR Pipeline Co.- Lincoln Compressor Station (N5586) on 7/25/2024. The purpose of this inspection was to evaluate ANR Pipeline Co.- Lincoln Compressor Station is in compliance with their Renewable Operating Permit (ROP) MI-ROP-N5586-2019 and all applicable requirements of the Federal Clean Air Act; Article II, Part 55, of the Natural Resources and Environmental Protection Act, 1994 PA 451; and AQD Administrative Rules.

The Lincoln Compressor Station is a natural gas pipeline compressor station located in Lake George, MI (Clare County). The function of the facility is to maintain pressure in the pipelines during the transport of natural gas from ANR's mainline to and from storage facilities, distribution companies, or end users. This site is considered a major source of hazardous air pollutants (HAPs), nitrogen oxides (NOx), and carbon monoxide (CO) emissions. The facility is subject to New Source Performance Standard (NSPS) 40 CFR 60 Subparts JJJJ. The last inspection was completed at the facility on 12/1/2021 and the facility was considered in compliance at that time. Ben Samuelkutty is the Field Environmental Analyst for the facility, responsible for submitting requested records. Brian Day, the Area Manager was present for the on-site inspection.

The facility employs approximately 9 people on site. While the Lincoln Compressor Station has the potential to operate 7 days a week and 24 hours a day, storage and delivery contracts, gas availability, and end user demands determine the intermittent use of the engines, whether that be simultaneously or independently. Personal protection equipment includes a hard hat, safety glasses, safety shoes, and hearing protection.

#	Equipment at Facility
3	2-stroke, lean burn, natural gas-fired RICE compressor engines (EU-LI001, EU-LI002, EU-LI003)
1	5.45 MMBtu/hr emergency generator (EU-LI010)
2	5.0 MMBtu/hr boilers (Exempt Rule 282(2)(b)) (EU-LI011 and EU-LI012)
1	6.63 MMBtu/hr dry bed dehydrator furnace (EU-LI009)
Exempt Equipment at Facility	
30	Heaters rated between .004 and .0204 MMBtu/hr (Exempt Rule 282(2)(B)(i))
	Condensate storage tank 12,000 gal (Exempt Rule 284(2)(e))
9	Storage tanks, all less than 40,000 gal w/ vapor pressure less than 1.5 psi (Exempt Rule 284(2)(i))

SOURCE-WIDE CONDITIONS

MI-ROP-N5586-2019 has source-wide conditions pertaining to the venting of natural gas for routine maintenance or relocation of transmission and distribution systems or field gas venting for routine maintenance or relocation of gathering pipelines, in amounts greater than 1,000,000 standard cubic feet. These conditions require the facility to notify the AQD District Supervisor prior to a scheduled venting and provide necessary notification to other regulatory agencies and the pollution emergency alert system (PEAS) as applicable.

AQD has no record of this type of notification from the facility. **The facility appears to be in compliance with the source-wide conditions at this time.**

FG-LIREC

The facility's 3 natural gas-fired, 2-stroke, lean burn reciprocating internal combustion engines are used to compress natural gas for injection into or for withdrawal from a natural gas storage field. **EU-LI001** and **EU-LI002** are Clark TLAD8 models, rated at 3,200 hp. **EU-LI003** is a Cooper-Bessemer 16W330 model rated at 8,000 hp and is primarily used to fulfill higher demand and pressure needs. These engines were installed prior to regulations that prohibited the use of permitting exemptions for engines of their size located at a major source of HAPs. Although these engines are considered grandfathered and were not subject to New Source Review (NSR) permitting requirements, future modifications of this equipment may be subject to NSR requirements.

At the time of this inspection, EU-LI002 and EU-LI003 were down for routine maintenance. EU-LI001 was available for use but was not operating due to lack of immediate commercial use.

SC	Condition	COMPLIANT?
III.1	Fire pipeline quality natural gas in the compressor engines	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.1	Monitor and record monthly natural gas consumption rate for each unit in FGLIREC	Yes

- The facility submitted the monthly natural gas consumption rate for each unit in FGLIREC for the previous 2-year period. Unit 1 recorded the most usage and ranged in run hours from the fewest in December of 2023 at 29.97 hours to the most in June of 2023 at 520.42 hours with a total natural gas usage that month of 8,698.83 MCF.

FG-LIREC appears to be in compliance with all permit conditions at this time.

FG-RICEMACT

The conditions for FG-RICEMACT listed in the current version of the ROP were applicable to EU-LI004, the 330 hp (200 kw) General Electric emergency generator that was removed from the facility in 2019 and replaced by EU-LI010. **EU-LI010** is a General Electric, 755 hp (500 kw) emergency generator with a Caterpillar, 4-stroke, lean-burn engine (5.4 MMBtu/hr heat input rating).

This emergency generator is subject to **40 CFR Part 63, Subpart ZZZZ** – the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

- According to 40 CFR 63.6590(b)(1)(i) EU-LI010, because the engine is a new, emergency, stationary RICE located at a major source of HAP emissions, the source does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of 40 CFR 63.6645(f).
 - Initial notification was received on 5/7/2019

FG-RICEMACT appears to be in compliance with all applicable conditions at this time.

FG-NSPS4J

EU-LI010 is also subject to **40 CFR Part 60, Subpart JJJJ** – the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE).

Emission Limits:

SC	Pollutant	Limit	Time Period / Operating Scenario	UAR	COMPLIANT?
I.1	NOx	2.0 g/HP-hr OR 160 ppmvd at 15% O ₂	Hourly	40 CFR 60.4233(e)- Table 1 of 40 CFR 60 Subpart JJJJ	Yes <i>Stack test on 1/21/2020</i>
I.2	CO	4.0 g/HP-hr OR 540 ppmvd at 15% O ₂	Hourly	40 CFR 60.4233(e)- Table 1 of 40 CFR 60 Subpart JJJJ	Yes <i>Stack test on 1/21/2020</i>
I.3	VOC	1.0 g/HP-hr OR 86 ppmvd at 15% O ₂	Hourly	40 CFR 60.4233(e)- Table 1 of 40 CFR 60 Subpart JJJJ	Yes <i>Stack test on 1/21/2020</i>

40 CFR Part 60, Subpart JJJJ	Condition	COMPLIANT?
60.4237	Owner or operator must install a non-resettable hour meter.	Yes
60.4243(b)(2)(ii)	If the permittee purchases a non-certified engine, the permittee - must keep a maintenance plan - conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter	Yes

- HOUR METER Reading: 212.80 hours
- The initial performance test was conducted on 1/21/2020. The generator demonstrated compliance with the emission limits listed above.

Monitoring/Recordkeeping:

40 CFR Part 60, Subpart JJJJ	Condition	COMPLIANT?
60.4245(a)(1),(2) and (4)	Keep records of maintenance conducted on the engine , and if the stationary SI internal combustion engine is not a certified engine, documentation that the engine meets the emission standards.	Yes
60.4245(b)	Keep records of the hours of operation recorded through the non-resettable hour meter and document how many hours are spent for emergency/non-emergency operation.	Yes

- The facility submitted maintenance records for the engine for the past two years.
- The facility submitted engine runtime records including the purpose of each use. In 2023, EU-LI010 ran for a total of 20.3 hours, 5.7 of which were for emergency purposes. So far in 2024, the engine has run for 31.9 hours, 26.2 of which were for emergency purposes.

EU-LI010 appears to be in compliance with all applicable conditions at this time.

FG-BOILERMACTEXISTING

The current ROP contains conditions for EU-LI006, a 4.185 MMBtu/hr boiler that was 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 based on the criteria that it was an existing emission unit designed to burn Gas 1 Subcategory fuels (natural gas only). This boiler was removed from the site in 2021. The ROP will be updated during the current renewal to reflect this change.

FG-BOILERMACTNEW

The two Cleaver-Brooks, natural gas-fired boilers, **EU-LI011 and EU-LI012**, were installed in 2021 to replace EU-LI006. The 5.0 MMBtu/hr units operate to ensure adequate heat is available to the facility. The units appear to be exempt from requirements to obtain a Permit to Install (PTI) via Rule 282(2)(b)(i) but are 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. The units are categorized as new units (constructed after June 4, 2010) with a heat input capacity of less than or equal to 5 million Btu per hour, and are designed to burn gas 1 fuels subcategory.

EU-LI009 is the drybed dehydration furnace, rated at 6.63 MMBtu/hr, used to remove liquid from the natural gas as it is compressed for transport. EU-LI009 was installed in 2018 and is therefore categorized as new, rated equal to or greater than 5 million Btu per hour, and are designed to burn gas 1 fuels subcategory.

SC	Condition	COMPLIANT?
II.1	Only burn fuels as allowed in the Unit designed to burn gas 1 subcategory definition in 40 CFR 63.7575.	Yes
III.3	Boilers and process heaters with a heat input capacity: a. Of less than or equal to 5 MMBTU per hour must complete a tune-up every 5 years (EU-LI011 and EU-LI012) b. Greater than 5 MMBTU per hour and less than 10 MMBTU per hour must complete a tune-up every 2 years as specified in 40 CFR 63.7540, stated in SC IX.8 (EU-LI009)	Yes

III.5	Conduct the first biennial tune-up no later than 25 months after the initial startup of the new or reconstructed boiler or process heater, or the first 5-year tune-up no later than 61 months after the initial startup of the new or reconstructed boiler or process heater	Yes
40 CFR 63.7540(a)(11)	Conduct biennial performance tune-up: Inspect burner, flame pattern, air-to-fuel ratio control, optimize total emissions of CO, measure CO concentrations in effluent stream before and after adjustments are made and maintain records of concentration and record corrective actions from tune-ups.	Yes

- EU-LI011 and EU-LI012 were installed in 2021 and are required to have tune-ups every five years. Their first tune-ups are due in 2025.
- EU-LI009 was installed in 2018 and is required to have a tune-up every two years. Records were received from the last tune-up on 2/21/2024 which included inspection of the burner, flame pattern, and air-to-fuel ratio control system. The CO and O2 levels in the exhaust were measured and recorded before and after the tune-up.

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.1	The permittee must keep: a. A copy of each notification and report that the permittee submitted b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations	Yes

FG-BOILERMACTNEW appears to be in compliance with all applicable conditions at this time.

The facility appears to be in compliance with all applicable conditions at this time. All records submitted to demonstrate compliance with permit requirements and emissions limits are included with this report.

NAME

Rachel Benaway

DATE

8/14/2024

SUPERVISOR

Gina L. McLean