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

N821240222

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| **FACILITY:** Linn Operating, LLC - Unit 174 Booster | | **SRN / ID:** N8212 |
| **LOCATION:** NW 1/4 SW 1/4 SW 1/4 SEC 26, BRILEY TWP | | **DISTRICT:** Gaylord |
| **CITY:** BRILEY TWP | | **COUNTY:** MONTMORENCY |
| **CONTACT:** Diane Lundin , Senior EHS Representative | | **ACTIVITY DATE:** 06/09/2017 |
| **STAFF:** Bill Rogers | **COMPLIANCE STATUS:** Compliance | **SOURCE CLASS:** MINOR |
| **SUBJECT:** Scheduled inspection, minor source | | |
| **RESOLVED COMPLAINTS:** | | |

**On June 9, 2017, I inspected the Unit 174 Booster, located near Atlanta.**

**Facility latitude and longitude are approximately 44.958907, -84.172361. I will ask to have this information added to our database. The facility is located down a fairly distinct sand trail which goes south from a point about 50-100 feet east of the intersection of Ryan Road and County Road 489, west of Crooked Lake.**

**The facility is covered under Permit to Install 395-08. This permit lists one natural gas fired reciprocating engine. This matches what I found on site.**

**Permit 395-08, Table EUENGINE1, Condition I.1 limits nitrogen oxides (NOx) to 68 tons per year based on a 12 month rolling time period. Emissions estimates from Linn Energy, attached, report 60.77 tons per 12 month rolling time period. This complies with the permit condition.**

**Condition I.2 limits carbon monoxide (CO) to 6 tons per 12 month rolling time period. Emissions estimates, attached, report 4.52 tons per 12 month rolling time period. This complies with the permit condition.**

**Condition II.1 prohibits burning any sour gas at the facility. I did not see or smell any evidence of sour gas at the facility. The facility compresses Antrim Formation gas, which is almost always sweet gas.**

**Condition III.1 requires a Malfunction Abatement Plan. The owners of the facility submitted one. Air Quality Division (AQD) approved it March 30, 2009. This complies with the permit condition.**

**Conditions III.2, IV.1, and VI.4 have to do with proper operation and recordkeeping for any add on control device. This engine does not have an add on control device, so these conditions do not apply.**

**Condition V.2 requires a device to monitor natural gas usage by the engine. Condition VI.2 requires monitoring engine gas consumption. Condition VI.5 requires recording this gas consumption. I did not identify a fuel flow meter on site. However, gas consumption information is included on the emission sheets, attached; this complies with Conditions VI.2 and VI.5. This also suggests that a device to measure gas consumption is in place, which would comply with Condition V.2.**

**Condition VI.3 requires a maintenance log. Example pages of the maintenance log are attached. This complies with the permit condition.**

**Condition VI.6 requires monthly and 12 month NOx emission calculations. Condition VI.7 requires monthly and 12 month CO emission calculations. Results of these calculations are included on the emission sheet, attached. This complies with the permit conditions.**

**Condition VIII.1 sets stack dimensions as a maximum diameter of 6 inches and a minimum height of 30 feet above ground level. The stack is about 6 inches diameter and appears to be about 30 feet high; judging by eye, it complies with the permit condition.**

**COMMENTS:**

**The booster engine is located next to a well labeled as Linn Operating Inc. State Briley D1-26, NW SW SW Sec 26, T30N/R2E, Pmt 47020. It is one medium to small sized natural gas fired engine without add-on control device. It appears to be made by Caterpillar.**

The engine was running at the time of my inspection. I didn't find any control panel to record operating conditions. There were some dial-type thermometers in what appeared to be coolant lines; one of this pair of lines had a coolant temperature of about 95 degrees f, the other 190 degrees f.

I saw a note written in dry marker saying "Unit 174," which matches the company's name for this facility in the permit.

I found the following small tanks on site:

One small drum on stilt tank. It is an unfamiliar size, but smaller than the standard 300 gallon size; I guessed perhaps 100 gallons. It was labeled Mobil Pegasus 805 Super Gas Engine Oil, SAE 15w-40. It was located inside the compressor shed near the engine.

One 300 gallon drum on stilts type tank labeled methanol. It was outside the shed wall with a tube leading inside through the wall.

One 300 gallon drum tank at ground level. This was labeled Kendall Motor Oil. However, it was next to the engine radiator, on the ground, inside a wooden berm. I suspected it might be containing engine coolant because of its location and the lack of any other coolant tank.

Maintenance appeared fair. I didn't see any stained soils or other evidence of leaks or spills. I didn't note any odors on site.

NAME William J Rogers I-  DATE 6/14/17  SUPERVISOR SN