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

N557534954

FACILITY: ANR Pipeline Company - Bridgman Compressor Station		SRN / ID: N5575
LOCATION: 3372 Browntown Rd, BRIDGMAN		DISTRICT: Kalamazoo
CITY: BRIDGMAN		COUNTY: BERRIEN
CONTACT: Michael Weston ,		ACTIVITY DATE: 06/10/2016
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On June 10, 2016 AQD staff (Matt Deskins) went to conduct an unannounced scheduled inspection of the ANR Pipeline facility located in Bridgman, Berrien County. The facility is a compressor station whose main function is to maintain certain pressures in pipelines that transport sweet natural gas from ANRs southwest mainline to storage facilities or local distribution companies. The facility is considered a major source of emissions for NOx, CO, VOCs, and HAPs and operates under Renewable Operating Permit No. MI-ROP-N5575-2013. The facility has five 1550 hp reciprocating internal combustion engines (RICE), three 1125 hp turbines, one 12,000 hp RICE, and one 585 hp RICE emergency generator which all operate on natural gas. According to file information, all of the preceding equipment was exempt from air permitting because they were installed prior to 1967 except for the 12,000 hp engine, one of 1125 hp turbines, and the 585 hp emergency generator. The 12,000 hp engine and the 1125 hp turbine were installed after the 1967 cut off date but were still exempt from permitting under a former Rule 36. The 585 hp emergency generator was installed in September of 2007 to replace two 370 hp generators. It was installed under the AQD Rule 285(g) permit exemption but is subject to 40 CFR Part 63 Subpart ZZZZ (RICE MACT). The facility also has a 5.021 MMbtu/hr boiler that is natural gas fired. It is subject to 40 CFR Part 63 Subpart DDDDD (NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters). Staff will not make any compliance determination regarding the Boiler MACT since the AQD is not delegated by the EPA to enforce it. The purpose of the inspection was to determine the facilities compliance with their ROP and any other state and/or federal air regulations that the AQD is delegated to enforce. Staff departed for the facility after conducting another nearby inspection and having lunch.

Staff arrived at the facility at approximately 12:40 p.m. The facility is surrounded by fencing and is equipped with automated gates. Any visitors have to page the office from an intercom system and identify themselves prior to personnel opening the gate. Staff did this and was allowed entry. Staff proceeded to drive to the office area and upon entry, introduced them self to Mike Weston. Staff has met with both Mike and Glen Smith during previous inspections. Staff mentioned to Mike the purpose of the visit, signed in, and gave him a copy of the brochure "Environmental Inspections: Rights and Responsibilities", as well as the Boiler Information Brochure and a business card. Staff then explained to Mike that the Boiler is subject to the Boiler MACT but the AQD isn't delegated to enforce it. The Brochure was for informational purposes and staff mentioned to Mike that he should probably forward on to the corporate office in case they aren't aware of the regulation. Mike then asked what staff needed to see and staff mentioned that they would need to go over the requirements of the ROP and then look at all the equipment. Mike mentioned that the facility was currently off line and that they were doing maintenance on some piping (?). Prior to looking over records for the permit, Mike went over the safety protocol with staff regarding the facility. Once that was done, staff asked Mike if all the emission units were the same and Mike said that they were. He said nothing has been added or removed and that all operations remain the same. The following is a summary of the facilities equipment and some information regarding them.

The 585 hp emergency generator: It was manufactured by Waukesha and as mentioned previously, replaced the two 370 hp Ingersoll-R and generators and was installed under the AQD Rule 285(g) permit exemption. The generator is all automated and senses any fluctuations with incoming power. If the facility should lose power, the generator automatically starts-up and will automatically shutdown when main power is restored. They still have to run it at least 1 to 2 hours a month for testing purposes and

they log the hours that this is done so they can calculate how many hours the engine has actually run during power outages. The engine was exempt from 40 CFR Part 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE) because it was only used for emergency purposes. The facility was required to provide an initial notification regarding this and did so upon the engines installation. However, with the amendments to Subpart ZZZZ that took affect, it is now subject to the regulation. Records reviewed by staff indicate that they do run it 1 to 2 hours a month for maintenance and it ran for approximately 12 hours last December during a power outage.

The five 1550 hp Clark RICEs. Designated as Units 1 through 5. None of these units were operating during staff's inspection because the facility was off-line. These engines are not subject to the RICE MACT because they are all existing lean burn engines and thus exempt from the regulation.

The four 1125 hp Solar Saturn turbines. Designated as Units 6 through 8. None of these units were operating during staff's inspection because the facility was off-line. These turbines are not subject to any federal NSPS, NESAHP/MACT, because of their date of installation. The one designated as unit 8 was installed under a permit exemption back in 1968.

The 12,000 hp Clark RICE. Designated as Unit 9. This unit was not operating during staff's inspection because the facility was off-line. This engine is also not subject to 40 CFR Part 63 Subpart ZZZZ because it is also considered an existing lean burn engine which is exempt from the requirements. The engine is subject though to the R 336.1818 rules for NOx emission reductions during the ozone control period (May 1 though September 30) of each calendar year. The facility had to develop a plan to comply with this rule and ultimately came up with an allowable NOx limit of 6.6 grams per brake horsepower hour. The facility has been testing the engine during every ozone season since 2007 and so far it has met the emission limit.

The 5.021 MMBtu/hr boiler was installed in 1972 and was manufactured by Kewanee. As mentioned in the opening paragraph, it is now subject to the Boiler MACT Subpart DDDDD. It was not in operation during staff's inspection.

Prior to looking over records, staff went on a tour of the facility with Mike since he was waiting on information from corporate regarding some of the records. During the walk through, staff noted that all the equipment was the same and as staff had mentioned previously, none of it was operating due to the facility being off-line. Once back at the office staff proceeded to go over the ROP and its requirements. The following are the special conditions of MI-ROP-N5575-2013 along with AQD staff comments regarding the facilities compliance status with them.

**Please note that staff did not include any requirements that were N/A in the ROP below.

EUBG009 EMISSION UNIT CONDITIONS

DESCRIPTION

Clark model TCVC20M; 12,000 HP natural gas fired reciprocating internal combustion compressor engine. Installed under a permit exemption. In 2003, unit was permitted to modify the fuel injection system to reduce NOx emissions. This engine is subject to Rule 336.1818 for NOx emission reductions during the ozone control period of May 1 through September 30 of each calendar year.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating	Equipment	Monitoring/	Underlying

		Scenario		Testing Method	Applicable Requirements
1. NOx (Oxides of Nitrogen)	174.6 pph[2]	Test Protocol. This limit applies during the non-ozone control period of October 1 through April 30 of each calendar year.	EUBG009	SC V.1, VI.1 & VI.2	40 CFR 52.21[2,3] R 336.1213 (3)
2. NOx (Oxides of Nitrogen)	6.6 grams per brake horsepower -hour	Test protocol or other approved alternative listed under R 336.1818 (4)(a)(ii). This limit applies during the ozone control period of May 1 through September 30 of each calendar year.	EUBG009	SC VI.3 & VI.4	R 336.1818 (3)

AQD Comment: COMPLIANCE. The facility has to test for the emission limit stated in number one above within the effective date of the permit so they still have quite a bit of time to do this. The facility has been testing for compliance with the limit in number two above every year during the ozone season. The testing this year was scheduled for June 2nd but had to be postponed. A new test date hasn't been set yet but they have been in compliance with the limits in the past.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any affected engine (as defined in R 336.1818(1)(a)) during the ozone control period of May 1 through September 30 of each calendar year unless the permittee complies with a department approved compliance plan as described in R 336.1818(3)(a). (R 336.1818(3))

AQD Comment: COMPLIANCE. The facility has an approved compliance plan and they appear to be meeting its requirements.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform testing, at owner's expense and in accordance with Department rules, of the NOx emission rate from EUBG009 once within the effective dates of this permit. No less than 60 days prior to testing, a complete stack testing plan must be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of the emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1213(3))

AQD Comment: COMPLIANCE. They haven't done this testing for this ROP cycle but they still have quite a bit of time to do this.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage rate for EUBG009 on a monthly basis. [2,3] (40 CFR 52.21)

AQD Comment: COMPLIANCE. The facility is doing, see attached spreadsheet.

2. The permittee shall record, in a satisfactory manner, the hours of operation of EUBG009 on a monthly basis. (R 336.1213(3)(b))

AQD Comment: COMPLIANCE. The facility is doing, see attached spreadsheet.

3. The permittee shall perform monitoring sufficient to yield data for each ozone period that is representative of a source's compliance with the NOx emission rate limit. The monitoring may include one of the following: (R 336.1818(4)(a)(ii))
   a. Performance tests consistent with either of the following:
      i. The provisions of 40 CFR Part 60, Subpart A and appendices A, B, and F and Part 75 (2005).
      ii. The provisions of ASTM D6522-00 (2005).
   b. A parametric monitoring program that specifies operating parameters, and their ranges, that shall provide reasonable assurance that each engine's emissions are consistent with the requirements of R 336.1818 (3).
   c. A predictive emissions measurement system that relies on automated data collection from instruments.
   d. A continuous emission monitoring system that complies with procedures set forth in 40 CFR Part 60, Subpart A and appendix B, and with the quality assurance procedures in appendix F; or 40 CFR Part 75, and associated appendices, as applicable and acceptable to the department.

AQD Comment: COMPLIANCE. The facility is conducting this testing every ozone season using the provisions of ASTM D6522-00.

4. The permittee shall maintain records of the following: (R 336.1818(4)(b)(ii))
   a. Identification and location of each engine subject to R 336.1818.
   b. Calendar date of record.
   c. The number of hours the unit is operated during each ozone control period compared to the projected operating hours.
   d. Quantity of natural gas used on a monthly basis.
   e. The results of all compliance tests.

AQD Comment: COMPLIANCE. The facility is doing all the above and only EUBG009 is subject to the regulation. The projected operating hours it will be operated during the ozone season is 3,672 hours according to their compliance plan. Since the rule took effect in 2007 the facility has been under this amount.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be postmarked or received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be postmarked or received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))

4. For all compliance/performance testing conducted to meet the requirements of R 336.1818(3), the permittee shall submit the following:
   a. A test plan not less than 30 days before the scheduled test date. (R 336.1818(4)(a)(i))

b. Test results (two copies) within 60 days following completion of the testing. (R 336.1818(4)(c))

AQD Comment: COMPLIANCE. The facility is meeting the requirements listed in 1 through 4 above.

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement, maintain, have on site, and make available for review, the "Compliance Plan for Stationary Internal Combustion Engines" dated April 2006, or any subsequently approved plan that describes how NOx emission rate requirements for EUBG009 will be met during the ozone season. The permittee shall submit any modifications to this compliance plan to the department for review and approval. (R 336.1818(3)(a))

AQD Comment: COMPLIANCE. The facility has this and hasn't needed to modify it to date.

EUBG011
EMISSION UNIT CONDITIONS

DESCRIPTION

Waukesha model H24GL HCR - 585 HP natural gas fired emergency generator installed under exemption.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 63.6640(f))
   a. There is no time limit on the use of emergency stationary RICE in emergency situations. (40 CFR 63.6640(f)(1))
   b. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
      (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
      (ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
      (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
      (40 CFR 63.6640(f)(2)(i))

c. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 63.6640(f)(3))

AQD Comment: COMPLIANCE. The facility is meeting the requirements listed in 1a through 1c above. Records reviewed by staff indicate the run the unit 1 to 2 hours a month for maintenance and that they did run it for approximately 12 hours last December during a power outage.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: COMPLIANCE. The facility is meeting the requirements listed in 1 through 3 above.

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP) as specified in 40 CFR Part 63 Subparts A and ZZZZ, as they apply to EUBG011. (40 CFR Part 63 Subparts A and ZZZZ)

AQD Comment: COMPLIANCE. The facility appears to be complying with the regulation.

EUBG012
EMISSION UNIT CONDITIONS

**** Staff did not make a compliance determination regarding this emission unit (Boiler) because the AQD is not delegated by the EPA to enforce the regulation.**

DESCRIPTION

Kewanee model L3S-150-G - 5.021 MMBtu-hr natural gas fired boiler.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.

(R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP) as specified in 40 CFR Part 63 Subparts A and Subpart DDDDD – NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. (40 CFR Part 63 Subparts A and DDDDD)

FGEQUIPMENT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Turbines and reciprocating internal combustion engines that were installed as a grandfathered source or under an exemption and have not been modified.

Emission Units: EUBG001, EUBG002, EUBG003, EUBG004, EUBG005, EUBG006, EUBG007, EUBG008

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas in the turbines and engines at this facility. (R 336.1201(1))

AQD Comment: COMPLIANCE. All equipment is fired by natural gas.

Records shall be maintained on file for a period of 5 years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record the natural gas consumption rate for each emission unit listed in FGEQUIPMENT on a monthly basis. (R 336.1213(3)(b))

AQD Comment: COMPLIANCE. The facility is doing this, see attached spreadsheet.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be postmarked or received by appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be postmarked or received by appropriate AQD district office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: COMPLIANCE. The facility is meeting the requirements of 1 through 3 listed above.

When staff finished reviewing the requirements and records required by the ROP, staff mentioned to Mike that everything appeared to be in compliance. Staff thanked Mike for his time and departed the facility at approximately 1:55 p.m. The facility appears to be in COMPLIANCE with ROP No. MI-ROP-

N5575-2013 and all other state and any federal air regulations that the AQD is delegated to enforce at the present time.

NAME Matt Dek DATE 6-14-16 SUPERVISOR MD 6/14/2016