

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

N828834952

FACILITY: Pinconning Compressor Station		SRN / ID: N8288
LOCATION: W CODY ESTEY RD, PINCONNING		DISTRICT: Saginaw Bay
CITY: PINCONNING		COUNTY: BAY
CONTACT: JIM CLARK, SAFETY & FACILITY COMPLIANCE COORDINATOR		ACTIVITY DATE: 06/13/2016
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled site inspection of minor source site. Facility emissions are well under applicable thresholds for Title V. sgl		
RESOLVED COMPLAINTS:		

On Monday, June 13, 2016, AQD District Staff arrived onsite to conduct a scheduled site inspection for the Pinconning Compressor Station (SRN N8288). The referenced facility is located approximately 0.7 miles west of the intersection of Cody Estey Road, and 7-mile Road, Pinconning Michigan, Bay County, Michigan. Site inspection was conducted with the intent of confirming operational status as well as compliance with the referenced permit.

The facility was unmanned, but operating at the time of arrival. Records were provided by Mr. Jim Clark, Cobra Oil and Gas Corporation upon request.

FACILITY DESCRIPTION

As indicated above, the compressor station is located approximately 0.7 miles west of the intersection of Cody Estey and 7-Mile Roads, Pinconning, Bay County, Michigan. The facility is located along an unpaved drive, located at the north side of the road. To the immediate east of the facility are agricultural properties, and the fenced station is visible from Cody Estey Road, when traveling from the east.

The Facility at the time of permitting was identified as a booster station which receives and compresses processed dry gas. Structures on site are limited and consist of:

- two buildings,
- radio tower, and
- 210 bbl slop tank.

The larger of the two buildings houses the NG compressor (and associated scrubber) for the facility. The second building is a small office space, where records are kept. Doors for the compressor building were wide open at the time of the site inspection to allow for ventilation. The RICE associated with the facility at the time of permitting was a 415 HP Caterpillar G379 turbo aspirated, spark ignition (SI), 4 stroke rich burn (4SRB) engine equipped with 3-way, non-selective catalytic reduction (NSCR) and air to fuel ratio controls (AFRC).

However, the District was notified electronically on June 2, 2016, that this EU was replaced with a smaller 225 HP, Caterpillar 342NA, HCR 4SRB (manufacture date of pre 6/12/2006) (started up 5/14/2016), and that official notification and an updated PM/MAP would be submitted in the near future.

Liquids from the compressor's scrubber are collected in the 210 bbl slop oil tank, with any collected liquids being trucked out. Per the permit application the slop oil tank is a vertical, fixed roof storage tank.

As indicated the facility is a fenced facility, and has only a single access. The facility is clearly marked/signed, and appears to be well maintained. Mr. Clark reports that the station is operated seasonally, and was started back up in mid-May 2016.

COMPLIANCE HISTORY

The AQD database indicates that there is one active permit of record for the site. The referenced facility was issued a Permit To Install (PTI No. 130-09) on June 16, 2009 as the Whiting Oil and Gas Corporation Pinconning Compressor Station. At the time of permitting the facility had been reported to have been used by multiple companies for short periods of time since the late 1980's. The company was proposing permitting/startup of a compressor station which had been out of service for approximately five years.

AQD District Staff received notification of new ownership for the facility by Cobra Oil and Gas Corp on August 17, 2015.

No complaints are of record for the facility.

COMPLIANCE EVALUATION

The facility was operating upon arrival, but unmanned, and the gate secured. No visible emissions were noted from the stack associated with the onsite compressor. This compliance evaluation is based primarily on review of records provided by the facility to confirm compliance.

The permit application associated with PTI 130-09 clearly indicated that a control device would be associated with the proposed RICE. At the time of the inspection, the onsite compressor engine (changed out mid-April 2016, and started up on May 18, 2016) is equipped with an add-on pollutant control device.

PTI 130-09 specifically identifies requirements for a Natural Gas (NG) fired Reciprocating Internal Combustion Engine (RICE) associated with the onsite compressor. However, the EU description in the referenced permit does not indicate that there is a control device associated with the RICE. A number of permit conditions reference engines "equipped with" or "containing" an "add on control device", or "if applicable, air-cleaning device". These conditions at the time of the inspection were determined applicable due to the presence of the add-on control and include: III.1(a) & (c), III.2, IV.1 and VI.4.

Process Equipment – Permitted equipment associated with the site is limited to the 4SRB Engine (EUENGINE1). SC IV.1, for EUENGINE1 limits the permittee to operation of any engine with add-on control device such that the control device is properly installed, maintained and operated. As indicated above, the present compressor engine was only recently installed and started up. Testing conducted on May 26, 2016, indicates that the engine and its control device were operating properly at that time as projected emissions for contaminants of concern would be below emission limits for the year. (SC I.1 and 2)

Process or operational restrictions associated with the PTI included submittal for review and approval of a PM/MAP for EUENGINE1. The referenced document was submitted by the new owner on December 23, 2015. The referenced document was approved by District Staff on December 28, 2015. No records of a submittal by the previous owner, in the required 60 days following issuance of permit (SC III.1) were found.

AQD District Staff anticipate receipt of an updated PM/MAP to reflect the recent installation of the 225 HF RICE onsite by July 15, 2016.

At the time the facility changed ownership, the RICE was equipped with AFRC and 3-way NSRC control devices, which are maintained in accordance with the manufacturer recommendation and in conjunction with the Preventative Maintenance/Malfunction Abatement Plan (PM/MAP) (SC III.1). The PM/MAP for the EU specifies that temperature pre and post NSCR will be monitored, as will the differential pressure across the catalyst. In addition to the activities in the contracted equipment maintenance schedule these parameters are monitored, and are used to determine if additional maintenance activities are required for the pollution control device. (SC III.1 (c))

EUENGINE1 (if equipped with a control device) is limited to no more than 200 hour of operation without the add-on control device. This limit is per engine change-out, reconstruction, rebuild or general

maintenance event. (SC III.2) Per records submitted, the recently installed EU was operated without controls for 196 hours prior to installation and testing of the RICE with catalyst on May 26, 2016.

EUENGINE1 is equipped with a continuous device to monitor and record the natural gas usage. (SC IV.2 and VI.2) The facility reports having a fuel meter onsite to meet the referenced requirement.

Material Use – Material limits associated with EUENGINE1 prohibit the burning of any sour NG at the facility. (SC II.1) NG received at the station is processed gas, and has previously been treated for hydrogen sulfide prior to arrival at the station.

Emissions – No visible emissions were noted from the stack associated with EUENGINE1 at the time of the inspection.

SC V.1 requires verification of NOx and CO at the owner's expense upon request by the AQD District Supervisor. No records of such a request has been found in district files.

The most recent RICE testing was conducted on May 26, 2016, by Archrock for the newly installed 225 HP RICE. Test results indicate that the potential to emit emissions for NOx and CO are below permit limits (I.1 & I.2). Actual emissions are anticipated to be even lower based on the seasonal operation of the permitted equipment.

Verification of hydrogen sulfide and/or sulfur content of the NG burned onsite may be required upon request of the AQD District supervisor. To date no such request has been made. As previously indicated the station does not process NG, but gathers and compresses processed dry/pipeline gas.

Monitoring – The facility is required to maintain records on file for a period of five years. The present owner has at the time of report preparation has been in control of the facility for under one-year, any previous records are under the control of Whiting Oil & Gas Corporation.

Recordkeeping– Recordkeeping requirements under the PTI require that calculations be completed and made available by the last day of the calendar month for the previous calendar month, less specified otherwise. (VI.1) These monthly records/calculations include;

- NOx emissions (VI.6)
- CO emissions (VI.7)
- Fuel Use records (VI.5)

In addition, the permittee shall maintain a log of all maintenance activities conducted according to the PM/MAP (SC VI.3) as well as records of the number of hours that the engine is operated without a control device (SC VI.4). The referenced records were provided upon request, and appear to be in general compliance with the permit.

Other – SC IX.1 required a minimum stack height for the engine stack of 32 feet above grade. The existing stack appears based on building heights to meet permit requirements.

SC VIII.1 (except as provided in R 336.1285) requires notification of RICE change out activities, and submittal of acceptable emissions data to show that the alternate engine is equivalent-emitting or lower-emitting. The data is required to be submitted within 30-days of the engine change out. Based on available records, it appears that the engine was installed on May14, 2016, and at the time of report preparation the document is past the 30 day submittal window.

The document submittal has been discussed with Facility Staff, who indicated that further evaluation is being done to determine the actual manufacture's emission data is for the permitted 415 HP engine. It was the feeling of Facility Staff and their consultant, that the previous owner may have been selective regarding emission data included as part of the permit application package. Additional time to better

verify vendor/manufacture data for the previous engine has been approved by District Staff.

SC. IX.1 & 2 of the permit indicates that the permittee shall comply with all provisions of:

- Federal Standards of Performance for New Stationary sources as specified in 40 CFR Part 60 Subparts A and JJJJ, and
- National Emission Standards for Hazardous Air Pollutants (NESHAP) as specified in 40 CFR Part 63, subpart A and ZZZZ

At the time of the inspection, EUENGINE1 is an existing (pre 6/12/2006 manufacture date), relocated, non-emergency, non-black start, 4SRB stationary rice of <500 HP at an area source. Table 2D of subpart ZZZZ, requires to the facility to conduct various part inspections (spark plugs, hoses and belts) or change out (oil and filter) activities every 1440 hours of operation (60 days), annually or when needed (whichever comes first). As previously indicated, the facility has contracted maintenance services, and a formal maintenance schedule, to meet the maintenance requirements for their equipment.

Table 6 of subpart ZZZZ, requires operation and maintenance of the stationary RICE per the manufacturers emission related operation and maintenance or development of a maintenance plan consistent with good air pollution control practices. This condition appears to have been met with the submittal of the PM/MAP submitted by Cobra on December 23, 2015 for the 415 HP Caterpillar engine. District staff anticipate that the PM/MAP for the recently installed 225 HP engine will also be sufficient to meet the requirements.

No operating limits for Table 2b of subpart ZZZZ appear to be applicable to the existing engine due to the engine size.

Based on the provided manufacture date of pre 6/12/2006, it appears that the 225 HP RICE may not have any additional requirements under 40 CFR Part 60, Subpart JJJJ. Further verification will be requested of the facility.

Summary –

On Monday, June 13, 2016, AQD District Staff arrived onsite to conduct a scheduled site inspection for the Pinconning Compressor Station (SRN N8288). The referenced facility is located approximately 0.7 miles west of the intersection of Cody Estey Road, and 7-mile Road, Pinconning Michigan, Bay County, Michigan. Site inspection was conducted with the intent of confirming operational status as well as compliance with the referenced permit.

The facility was unmanned, but operating at the time of arrival. Records were provided by Mr. Jim Clark, Cobra Oil and Gas Corporation upon request. A review of the information collected as part of the compliance evaluation indicates that with the exception of the formal notification of engine change-out and backup documentation indicating that the engine is of equivalent or lower emissions (SC VII.1) (which is outstanding) that the facility is in general compliance with their Permit to Install. Should the engine change-out evaluation determine that the new engine does not meet the equivalent or lower emissions requirement; the facility will be required to submit a permit modification application.



Image 1(south end of station) : view from SE corner (entrance to Left) of south portion of station. One office building (tan) and a 210 bbl slop tank in the background..

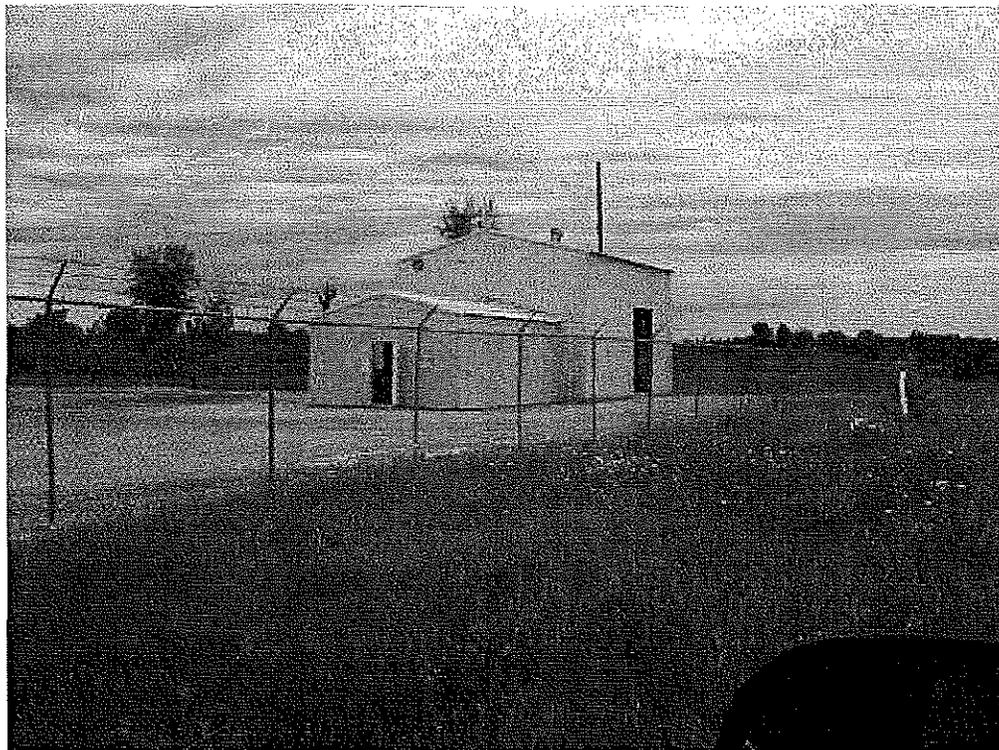


Image 2(compressor building) : view from SE corner of the compressor building located NE end of facility.

NAME Sharon LeBlanc

DATE 6/30/16

SUPERVISOR C. Hare