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

N818624208

FACILITY: BREITBURN OPERATING - St. Beaver Ck C4-18		SRN / ID: N8186
LOCATION: SW4 NE4 SE4 SEC 18, BEAVER CREEK		DISTRICT: Cadillac
CITY: BEAVER CREEK		COUNTY: CRAWFORD
CONTACT: Carolann Knapp , Environmental Specialist		ACTIVITY DATE: 01/21/2014
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: ~~SM OPT OUT~~ MINOR
SUBJECT: Field Inspection and Records Review		
RESOLVED COMPLAINTS:		

On January 21, 2014, Ms. Caryn E. Owens of the DEQ-AQD inspected Breitburn Operating LP (Breitburn) – State Beaver Creek C4-18 site located in the southwest quarter, of the northeast quarter, of the southeast quarter of Section 18 in Beaver Creek Township, Crawford County, Michigan. More specifically the site is located on the east side of Lease Road, approximately ¼ mile northwest of the West 7 Mile Road and Puffin Road intersection. To access the site, travel approximately ¼ mile west on 7 Mile Road from Puffin Road, and turn right and head north on Lease Road (this road is not marked). The site is on the east side of the road approximately ¼ mile north of 7 Mile Road. The field inspection and records review were to determine compliance with permit to install (PTI) 354-08. The site is a minor source, but an area source for National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart ZZZZ. However, the State of Michigan does not have delegated authority of the area source NESHAP, and thus NESHAP regulations were not reviewed by the DEQ. An inspection brochure was not given to anyone at the facility at the time of the inspection.

On-site Inspection:

During the field inspection it was clear and approximately -10°F, with calm winds. The facility had a sign at the entrance stating it was the Breitburn State Beaver Creek (PDC) C4-18 site. The site consisted of a well head, a production separator, and a compressor building containing a CAT 398 rich burn, 4-stroke reciprocating internal combustion engine (RICE) with a catalytic converter. The stack to the RICE was in the vertical direction extruding out of the roof on the eastern portion of the building, and was approximately 30 feet above ground surface. A white separated steam plume was observed from the stack, with the wind from the northwest direction. A very slight petroleum odor was present on the southeast portion of the site. There were no lights on the building to indicate whether it was safe to enter the compressor building, but Ms. Owens opened the north and south doors for air flow prior to entering. Ms. Owens observed two, approximately 100-gallon above ground storage tanks (ASTs) in secondary containment that contained engine oil. Additionally, Ms. Owens observed an approximately 500-gallon AST in secondary containment containing waste oil. The engine was operating at a speed of 825 RPMs, and the engine pressure was at 85 psi, and the engine temperature was at 145°F. The pre-catalyst temperature was 775°F and the post-catalyst temperature was at 785°F. A name plate was observed on the southern portion of the engine, which indicated it was a CAT engine, the remainder could not be clearly read.

Records Review:

EUENGINE1: Consists of a natural gas fired RICE.

I. Emission Limits:

I.1 and I.2: NOx emissions shall not exceed 8.2 tons per year and CO emissions shall not exceed 16 tons per year based on a 12-month rolling time period. 12-month rolling NOx emissions were reported between 2.82 tons – 3.31 tons for EUENGINE1, and 12-month rolling CO emissions were reported between 6.1 tons – 7.1 tons.

II. Material Limits were not applicable for EUENGINE1

III. Process/Operational Restrictions:

III.1: A PM/MAP was submitted to the DEQ on January 9, 2009, and approved by the DEQ on May 7, 2010.

III.2: Based on the records received, the engine operated without a catalyst for 1.5 hours total from December 2012 – December 2013.

IV. Design/Equipment Parameters

IV.1: During the site inspection, Ms. Owens observed that engine information was recorded for February 21, 2014, which was the first date on the sheet. Sheets from the beginning of the month were not on site. DEQ requested the daily log sheet, spontaneously, for March 2013 to verify the catalytic converter inlet and outlet temperatures are recorded on a daily basis. The daily log sheet for March 2013 is attached.

V. Testing/Sampling

V.1: No stack testing has been conducted at the site. Emissions are based off the engine specification sheets.

VI. Monitoring/Recordkeeping

VI.1: The permittee uses acceptable calculations. Calculated emission reports were submitted to the DEQ upon request for a records review on January 8, 2014.

VI.2: Based on the records reviewed, the amount of gas used in EUENGINE1 ranged between 1,110 mscf per month – 1,910 mscf per month.

VI.3: The maintenance logs for the facility are attached to this report. The maintenance activities appeared to be completed in accordance with the PM/MAP for the site.

VI.4: As stated in Section III.2, the engine operated without a catalyst for 1.5 hours total from December 2012 – December 2013.

VI.5: Breitburn Operating, LP submitted monthly fuel use records from, December 2012 – December 2013, to the DEQ on January 8, 2014, which are discussed above in Section VI.2.

VI.6 & VI.7: As stated above in Section I.1 and I.2, 12-month rolling NOx emissions were reported between 2.82 tons – 3.31 tons for EUENGINE1, and 12-month rolling CO emissions were reported between 6.1 tons – 7.1 tons. The emissions were reported from December 2012 – December 2013. The reported emissions were lower than the permitted emissions for the site, which were 8.2 tons per year for NOx and 16 tons per year for CO. Additionally, monthly controlled NOx emissions were reported between 0.19 tons – 0.33 tons for EUENGINE1, and monthly controlled CO emissions were reported between 0.41 tons – 0.67 tons (uncontrolled emissions for NOx and CO were reported as 0.00 tons per month).

VII. Reporting

VII.1: Based on the field inspection and the descriptions of the engines, the engines do not appear to have been replaced with a different engine.

VIII. Stack/Vent Restrictions

VIII.1: During the field inspection the stack was in the vertical direction extruding from the eastern portion of the building, approximately 30 feet above ground surface containing a muffler and catalytic converter. A separated white steam plume was observed from the stack, and a very slight petroleum-like odor was present on the southern portion of the site. Both the odor and steam plume quickly dissipated. The stack height appeared to be within the permitted limits of 30 feet above ground surface.

FGFACILITY:

Emission Limits, Process/Operational Restrictions, Design/Equipment Parameters, Monitoring/Recordkeeping, Recordkeeping, Stack/Vent Restrictions, and Other Requirements are not applicable for FGFACILITY.

Material Limits and Testing/Sampling:

According to the DEQ-Office of Oil, Gas and Minerals (OOGM), this site pulls from the Prairie Du Chein formation (PDC) which does not contain sulfur in the gas stream. Based on this information, DEQ did not request verification of the H2S and/or sulfur content of the natural gas at this time.

Summary:

The activities covered during the field inspection and records review for the facility indicate the facility was in compliance with emission limits in accordance with the PTI 354-08.

NAME Cayn Owens DATE 1/31/14 SUPERVISOR