

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

N607631506

<b>FACILITY:</b> BREITBURN OPERATING LP - MONITOR 11 CPF		<b>SRN / ID:</b> N6076
<b>LOCATION:</b> THREE MILE RD, BAY CITY		<b>DISTRICT:</b> Saginaw Bay
<b>CITY:</b> BAY CITY		<b>COUNTY:</b> BAY
<b>CONTACT:</b> Carolann Knapp ,		<b>ACTIVITY DATE:</b> 08/31/2015
<b>STAFF:</b> Benjamin Witkopp	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Scheduled inspection of Monitor 11 CPF		
<b>RESOLVED COMPLAINTS:</b>		

On August 31, 2015 Ben Witkopp of the Michigan Department of Environmental Quality - Air Quality Division (MDEQ-AQD) met with Kevin Clennan of Breitburn at the Monitor 11 gas compressor & dehydration facility. Kevin is the facility operator. Kevin said required records were available through Carolann Knapp of Breitburn. The facility is covered by air use permit to install 628-96C. The permit has limits for NOx, CO, and Benzene emissions. The NOx and CO limits are capped at 89 tpy so they keep the facility from being a major source and subject to Title V. The facility is subject to NSPS for Equipment Leaks of VOC from Onshore Natural Gas Processing Plant - 40 CFR Part 60, Subpart A and KKK. It is also subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE) – 40 CFR Part 63, Subparts A and ZZZZ.

The facility processes wet natural gas from four wells at this point in time. One is the Rae 1-12, another is the Prevost 1-11, third is the Shepard 1-2, and the last is the Walczaki 1-7. At one time gas was also provided by the Dobson 1-8, Francis 1-1, and the Vermeesch 1-21. However, these last three wells are not producing now. Kevin mentioned that the facility used to process 25 MMcfd but it is now down to about 1 MMcfd.

The facility is comprised of heaters, a dehydrator, and compressors. Natural gas liquids (NGLs) are removed, as is water, to make pipeline quality natural gas. The gas is then compressed before entering the pipeline.

The glycol used at the facility is recirculated in a closed loop. The glycol heater does have a stack for exhaust. The permit specifies a maximum glycol recirculation rate of 0.42 gallons per minute. When records were checked the daily totals were typically 330 to 335 gallons per day. The highest value was from August 17th at 354 gpd. These levels (about 0.23 gpm or less) are well below the 0.42 gpm limit. The temperature of the air cooled condenser exhaust gas was 79 f. The highest was found in August at 95 f. These temperatures are well below the permit limit of 120.

The engines on site are not subject to NSPS JJJJ for Stationary Spark Ignition Engines due to the manufacturing dates though relocated to the site after July 2007.

There are two engines on site. Engine 1, for production, unit 784, is a 399TA Cat rated at 930 hp. It typically used 51-52 Mcfd to power an Ariel JGR/4 compressor. The exhaust (entering the catalyst) was 906 F and yet was 896 upon exit. This fairly unusual condition was pointed out to Carolann and she said they have a few units like that and testing has found them to still be in compliance. Engine 2, for recirculation, unit 300 is a 342 NA Cat rated at 225 hp. It used about 12-18 Mcfd to power an Ariel JG/2 compressor. The exhaust (entering the catalyst) was 874 F and 929 upon exit.

Kevin said that after an engine change-out, the engine is run for about 20 minutes without the catalyst. This action is allowed in the context of the permit. Records showed for the last 12 months a total of 1.5 hrs of operation were run without the use of a catalyst.

The facility has a contract with Exterran for engine maintenance and performance monitoring. The results of their activity are given to Brietburn and input into a maintenance database.

Kevin said Carolann Knapp keeps the records for the facilities so they were subsequently requested. The dehy has a limit of 0.5 tons of benzene during a 12 month rolling time period. Individual monthly records have extremely tiny fractions of a ton each month (usually around 0.002) so there is nothing close to the limit on a 12 month basis.

Engine 1 (for the production compressor) has 12 month rolling limits for NOx of 20 tpy and CO of 15 tpy. Engine 2 (for the recirculation compressor) has NOx and CO limits of 28 and 30 tpy based on a 12 month rolling time period. Records for engine 1 indicated about 4 tons of NOx and about 9 tons of CO per 12 month rolling time

period. These values are well below the permit limit. Engine 2 tons per 12 month rolling time period values for NOx and CO are about 1 and 2 respectively. These emissions are well below permit limits. The facility limits for NOx and CO are both 89 tpy based on a 12 month rolling time period. NOx levels were about 6 tpy while CO levels were a bit above 11 tpy. Both amounts are well below permit limits.

The facility is subject to NSPS subpart KKK. However, VOC monitoring requirements are only for weekly visual inspections of pumps & valves in light liquid service & annual inspections.

The facility is considered to be in compliance.

NAME B. Zwick

DATE 9-29-15

SUPERVISOR C. Hare