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

B546236009

FACILITY: Breitburn Operating L.P. - Rich Field Gas Plant		**SRN / ID:** B5462
LOCATION: 7770 McTaggert Rd, NORTH BRANCH		**DISTRICT:** Lansing
CITY: NORTH BRANCH		**COUNTY:** LAPEER
CONTACT: Ken Bodmer , Foreman		**ACTIVITY DATE:** 07/27/2016
STAFF: Michelle Luplow	**COMPLIANCE STATUS:**	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled compliance inspection to determine compliance with MI-ROP-B5462-2014b.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow

Personnel Present: Ken Bodmer (Kenneth.bodmer@breitburn.com), Foreman/Manager
Dwayne Donnely, Plant Operator

Other Personnel: Carolann Knapp (carolann.simmons@breitburn.com)

Purpose: Conduct an announced, scheduled, partial compliance evaluation (PCE) inspection of Breitburn Operating LP Rich Field Gas Plant site. Compliance was determined based on Breitburn's Renewable Operating Permit, MI-ROP-B5462-2014b. This activity was done as part of a full compliance evaluation (FCE).

Facility Background/Regulatory Overview: Breitburn Rich Field is a natural gas sweetening facility. Prior to December 2015, the sour gas produced from Breitburn's tank battery (B7394), located on Mowatt Rd in North Branch, was sent through lines directly to this site to be sweetened via H_2S removal (amine treatment). From the end of December 2015, through the present date, Breitburn has been sending all gas from the Mowatt Rd site directly to the Rich Field sweetening facility's flare to be burned. They are a major source of criteria air pollutants, specifically SO_2.

In the 2014 ROP Renewal, EUDEHYDRATOR (glycol dehydration unit), EUCOMP-ENG (natural gas-fired compressor engine), EUCOMP-BACKUP (natural gas-fired back-up engine to EUCOMP-ENG), and EUEMERGENCY-GEN (propane-fired emergency generator) were added to the ROP. These pieces of equipment were exclusively used for sweetening the gas. K. Bodmer said as of December 29, 2015 gas is no longer sent to the compressor, amine, or acid injection buildings, and therefore these pieces of equipment are no longer being used. He said Breitburn also does not plan to use them in the future. However, they are still located at the plant and will remain in the ROP until they have been rendered inoperable or removed from the site.

Inspection: At approximately 9:20 a.m. on July 27, 2016 I met with Ken Bodmer and Dwayne Donnely at Breitburn's sweetening plant. I had given K. Bodmer the "Environmental Inspections: Rights and Responsibilities" brochure during the 2014 inspection. There were no detectable odors onsite during the inspection.

EUGAS-TREATING

All gas is sent directly to the flare and burned. It is no longer treated for H2S. K. Bodmer said that they are flaring the gas 24 hours per day. D. Donnely explained that the gas comes into the sweetening plant through one line from the well field (Mowatt Rd site) where they currently have 12 producing wells. The gas is sent to a water knockout device before entering the old NaSH building where there is a digital and paper recorder readout system that records the instantaneous gas flow in mcf and the previous day's gas flow in mcf into the plant.

Emission Limits
Sulfur dioxide emissions are limited to 2,227 lb/day from the flare. Breitburn is required to submit monthly reports on SO2 daily emissions from the flare. AQD has reviewed these monthly reports as they come in, which indicate that Breitburn has remained in compliance with these emission limits on a daily basis through July 2016 (most recent monthly report).

Process/Operational Restrictions
The permit requires that all waste gas be burned in the flare, injected back into productive formation or have equivalent control of H2S and mercaptans. All inlet sour gas is sent to the flare. Breitburn is in compliance with this condition.

Conditions 2 and 3 require that a pilot flame be burning continuously, fueled only by sweet natural gas, and that a system to continuously monitor the flare pilot flame is installed and will shut in the wells if the flare goes out. The flare was burning sour gas during the inspection. K. Bodmer and D. Donnely explained that they conducted maintenance on the flare in June,

installing a new thermocouple, and a new crown for the flame. D. Donnely explained that anytime the process gas is cut off from the flare, including the period of time when the maintenance was being conducted, a pilot flame is lit that only burns sweet natural gas. Any sweet natural gas that is burned at this site is what K. Bodmer explained as "buy-back" from Southeastern, who supplies natural gas to the surrounding community as well. A continuous monitor digital display is used to monitor the operation of the flare. The flare was running at ~1080°F during the inspection. D. Donnely explained that when the temperature drops to 500°F or less, an alarm goes off and the plant is automatically shut down. The gas lines will open up again when the temperature for the flare reaches 600°F. D. Donnely explained that when they lose power, their emergency, ESD, system shuts the valves on the gas lines to prevent sour gas from entering the plant. Breitburn is in compliance with these conditions.

Breitburn is also required to have H2S sensors installed in every building housing the sweetening process and a visual alarm should be triggered when the H2S concentration is at or about 50 ppm. They are also required to have the sensors automatically begin shutdown of the process inflow gas streams if the H2S concentration is over 100 ppm. K. Bodmer said that there are 4 main sweetening process buildings and each one has an H2S monitor, this includes: 1 in the sweetening process building, 1 in the injection building, 1 in the compressor building. We verified that there was one in compressor engine building during the 2014 inspection. K. Bodmer said the alarm is triggered at 20 ppm – their "low alarm" with a light, and the wells are shut in at 100 ppm "high alarm." Gas no longer enters these buildings, as the sweetening process is no longer conducted. Breitburn is in compliance with this condition.

Condition 7 requires that a maintenance program be implemented, designed to prevent or mitigate odorous emissions from the storage tanks, vents, and all potential emission points at the source, and approved by the district supervisor. Per previous inspections conducted by Ken Terry, Breitburn's daily log book entries, which record information about that status of the plant, has been considered an acceptable maintenance program. Additionally, although not written, K. Bodmer explained that they do a visual walkthrough of the plant every morning of the plant. During these walkthroughs, if they detect odors, they identify where the leak is coming from and have procedures in place to fix those leaks. This is the procedure they conducted during the January 20, 2016 incident where they discovered a pinhole leak in the gas line.

Monitoring/Recordkeeping
Breitburn is required to measure and record the concentration of H2S in the gas stream to the flare at least once per hour via gas chromatograph and continuously measure and record the volumetric gas flow rate of the gas to the flare. The hourly H2S concentrations are required to be averaged over a 24 hour period (% daily average).

D. Donnelly explained that the chromatograph, which provides a real-time computer readout of the percent H2S concentration, takes a reading every 15-17 minutes. The computer then calculates daily averages from these 15-minute readings. The %H2S at the time of the inspection was 8.73%. Additionally, the volumetric flow rate is recorded on a continuous basis via a circular analog chart, and is also continuously monitored via digital readout. The instantaneous digital volumetric flow rate I recorded during the inspection was 77.0 mcf, and the average daily volumetric flow rate from the previous day (7/26/16) was 67.3 mcf. The volumetric flow rate meters/recorder are in the NaSH building, while the H2S monitoring/recording occurs in the office.

Breitburn is required to use the gas chromatograph at all times to determine H2S concentration in the gas stream, except in the event of maintenance, repair, or venting of flash gas to the flare. In these instances, Breitburn said they use Drager tubes to determine the H2S concentration. In the monthly report for January 2016, Breitburn reported using the Drager tubes for H2S concentration determinations for January 1-7, 2016. I showed K. Bodmer and D. Donnely the report and asked them why the Drager tubes were being used during that time period. They said that from 12/29/15 – 1/7/16 they had to shut the plant down to repair the gas chromatograph. I reminded K. Bodmer that records indicating the specific reason for using the alternative method and the length of time this alternative method was used must be kept, as required under condition 3. The information they provided on the most recent use of Drager tubes was sufficient, but future compliance will require this be on record.

Breitburn is in compliance with all monitoring and recordkeeping requirements at this time.

Reporting
Annual and semi-annual reports are required to be submitted. Breitburn is in compliance with this condition. See the FCE summary report for complete details.

Other Requirements
Breitburn is required to have fencing, warning signs or other deterrents to prevent unauthorized individuals from entering the site. There are several "Danger – Poison Gas" signs located at the entrance of the facility (west side) on the fencing as well as on the north side and south side fencing. Fencing encompasses the perimeter of the property. They also meet the requirement to have an emergency contact sign stating the emergency phone number for the facility manager, local and state police, and ambulance service. This sign is located at the entrance of the facility. Breitburn is in compliance with this requirement at this time.

An emergency procedures plan is also required per Breitburn's ROP. Carolann Knapp, Breitburn's Regional EH&S representative, since being made aware that the plan should be updated with the most up-to-date emergency contact information, etc, has submitted an Emergency Response Plan to the AQD on June 1, 2015 and an updated copy of the plan

on August 18, 2016. The emergency procedures plan includes emergency procedures for all Breitburn facilities across the nation; Michigan has its own section for counties containing Breitburn facilities. The first page of the Michigan section provides a 24-hour emergency phone number as well and office and home phone numbers of various Breitburn representatives, many of which are based in the Gaylord office, as well as K. Bodmer's contact information; Lapeer location has its own section, which includes contact information for the LEPC, and local fire and police departments, medical services, and spill response contractors. The 24-hour emergency phone number is supposed to be provided to residents in the area to call when they smell H2S odors.

In addition to the emergency response plan, Breitburn also has an H2S Contingency Emergency Plan which is required under the Office of Oil, Gas, and Minerals (OOGM) regulations, and also includes emergency contact information for the McTaggart site, and a list of residents in the area and their phone numbers in case of an emergency/evacuation needs to occur. I noticed that this does not include the two recent complainants' names or numbers. I will follow up with Shaun Lehman of OOGM to determine if this should be updated. C. Knapp provided me this document upon request.

Breitburn is also required to have appropriate local emergency personnel review the emergency procedures plan prior to June 1 of each year. The AQD received a letter on June 1, 2016 data May 25, 2016 acknowledging that on May 24, 2016 K. Bodmer and Ken Jensen of the North Branch/Burlington Township Fire Department discussed the evacuation plan and informed K. Jensen of the plans to shut down the sweetening side of the gas plant. Breitburn is in compliance with this requirement at this time.

Breitburn is also required to report abnormal H2S gas releases to the PEAS hotline (after hours), and to me directly if during normal business hour. K. Bodmer said that he has been reporting this to Shaun Lehman, but I reminded him that per the ROP he must also let me know of the abnormal H2S gas releases so that I am aware of the situation before a complaint comes in. He acknowledged that he understood. All complaints, per a MOU between AQD and OOGM that are related to the sweetening facility, must go to AQD. I am aware of only a handful of complaints that S. Lehman has received in the past year.

At this time Breitburn Rich Field Gas Plant is in compliance with its Renewable Operating Permit.

NAME _____ DATE 8/22/16 SUPERVISOR _____