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

B709340922

FACILITY: Aztec Producing Company, Inc.		**SRN / ID:** B7093
LOCATION: 335 Washington St., MANISTEE		**DISTRICT:** Cadillac
CITY: MANISTEE		**COUNTY:** MANISTEE
CONTACT: John Ward , Plant Superintendent		**ACTIVITY DATE:** 08/01/2017
STAFF: Rob Dickman	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection of this major source.		
RESOLVED COMPLAINTS:		

AQD staff performed an inspection of this facility. The purpose of the inspection was to determine the facility's compliance with Renewable Operating Permit (ROP) No. MI-ROP-B7093-2014 and applicable state and federal air pollution control regulations. The facility was in operation at the time of the inspection.

This facility is a sour gas sweetening plant, located in the city of Manistee, in the county of Manistee, Michigan. In this facility natural gas, crude oil, condensate and brine fluids are extracted from wells drilled into a production reservoir. These materials are transmitted through flow lines, generally located within a 5 mile radius of the sour gas sweetening plant. The temperature of this stream of material is increased by inline heaters and the fluids are then separated and stored in fixed roof and pressurized tanks. Hydrogen sulfide (H2S) is removed from the natural gas using the amine process. The hydrogen sulfide is then burned in the amine reboiler along with sweet natural gas fuel, and then vented to the atmosphere as sulfur dioxide through a tall stack. In addition, the facility has a flare as an emergency backup for the following processes:

1. **Amine process flash tank - some vapors**
2. **Relief valves from various vessels**
3. **Brine and crude oil storage tanks when vapor recovery unit is not operating**
4. **Acid gas going to the amine reboiler in the case of a reboiler problem.**

This facility has a glycol dehydrator which is used to remove water vapor from the gas stream. In this process some volatile organic compounds (VOCs) are also released, so a second flare is used to control these emissions. This facility also contains a natural gas liquids (NGL) separation plant (EUNGLPLANT). In this plant the natural gas is chilled to the point that materials such as butane and propane are condensed into a liquid. They are then separated and stored in pressurized tanks as a liquid. A 200 hp, rich burn CAT G342 engine is used to drive the refrigeration process. The remaining gas is compressed by a 215 hp, rich burn CAT G6306 natural gas powered reciprocating internal combustion engine. This compressed gas is pumped into a pipeline for sales.

It should be noted that EUNGLPLANT is not subject to 40 CFR 60, Subpart KKK (Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants) as the facility commenced construction prior to the effective date of the regulation (January 20, 1984) and has not been modified.

At the time of the inspection, winds were strong and out of the south. No strong odors were noted. No opacity was noted at any emission point. Following are the findings of this inspection.

EUDEHY - This emission unit is included in the ROP and is subject to the requirements of 40 CFR, Part 63, Subpart HH. Currently, the State of Michigan has not taken delegation of authority of this regulation for area sources. Therefore, a compliance analysis of EUDEHY was not conducted at this time.

FGSOURGASPLANT - Natural gas sweetening process, glycol dehydrator, storage tanks, and natural gas liquids plant. Vapor Recovery System, Reboiler Fire Tube, Emergency Bypass Flare, Glycol Dehydrator Flare.

1. **EMISSION LIMIT(S) - Sulfur dioxide (SO2) emissions from FGSOURGASPLANT shall not exceed 1,350 pounds per day, based upon a 24-hour average. Data pursuant to this emission limit is submitted by the facility on a monthly basis. These reports are reviewed by AQD staff and have demonstrated compliance.**

2. MATERIAL LIMIT(S) - There is no material limits associated with this flexible group; therefore, this section is not applicable.

3. PROCESS/OPERATIONAL RESTRICTION(S) – The facility is required to send the acid gas stream to the amine reboiler to be combusted. In the event that the reboiler is down, the acid gas stream shall be sent to the bypass flare. Facility staff explained this process during the inspection and indicated this system is so configured.

   The facility is required to equip the emergency flare with a continuously burning pilot flame. This flare is so equipped. The pilot flame's fuel shall be sweet natural gas. Facility staff indicated there are no lines in place in which sour gas could be used as a fuel source for the flare pilot.

   In the event that the pilot flame is extinguished, an alarm is activated and a callout system notifies facility staff of the outage. The wells feeding the facility are shut-in if the pilot flame is not reignited with 60 minutes.

   The facility is required to not operate FGSOURGASPLANT unless all emergency relief valves, all storage tanks, and the dehydrator are vented to the reboiler burner, the bypass flare or the vapor recovery system. This facility is so configured.

   The facility is required to not operate FGSOURGASPLANT unless a vapor recovery system is employed in the load out of all brine and condensate storage tanks. An active vapor recovery system is in operation.

   All inflowing streams to FGSOURGASPLANT are required to be shut off if the concentration of H2S in the building is greater than 100 parts per million. Additionally, the facility is required to maintain the system to provide visual alarm when the H2S concentration is more than 50 ppm. For worker safety, all inflowing streams are shut off if the concentration of hydrogen sulfide in the building is greater than 20 parts per million. A warning is activated when the concentration reaches 10 ppm.

4. DESIGN/EQUIPMENT PARAMETER(S) - The facility is required to install a device to monitor the amount of gas produced on a daily basis. This device is located inside the main processing building

   The facility is required to design and install a system to provide visual alarm when the H2S concentration is more than 50 ppm. As stated above, the facility is so equipped.

5. TESTING/SAMPLING - The facility is required to shall perform non-certified visible emissions observations from the flares and the reboiler stack on a daily basis. These observations are being taken and a record of them is kept with the daily logs for the facility. These logs were reviewed on site by AQD staff and appeared complete.

6. MONITORING/RECORDKEEPING – On a monthly basis, the facility is required to monitor and record the mass flow rate of H2S either entering the plant or going to the reboiler. This information is submitted to the AQD on a monthly basis. These reports are reviewed and documented by AQD staff and have demonstrated compliance.

   The facility is required to calculate and record the SO2 emissions, in pounds per day based upon a 24-hour average. This information is submitted to the AQD on a monthly basis. These reports are reviewed and documented by AQD staff and have demonstrated compliance.

   The facility is required to monitor and record the amount of gas produced on a daily basis. This information is submitted to the AQD on a monthly basis. These reports are reviewed and documented by AQD staff and have demonstrated compliance.

   The facility is required to establish a program to continuously monitor H2S concentrations in the building enclosing FGSOURGASPLANT. The facility is equipped with an in shack monitoring system for H2S.

   The facility is required to maintain records of malfunctions and abnormal conditions. These records are kept in a running log for activities at this facility. This log was reviewed by AQD staff and

appeared complete.

7. **REPORTING - All semi-annual and annual deviation reporting has been completed in a timely manner. This reporting has been received and reviewed by AQD staff.**

   Records of SO2 emissions are required to be submitted. This information is submitted to the AQD on a monthly basis. These reports are reviewed and documented by AQD staff and have demonstrated compliance.

8. **STACK/VENT RESTRICTION(S) - Stack parameters do not appear to have been recently modified and appear correct.**

9. **OTHER REQUIREMENT(S) - The facility is required to shall install and maintain fencing, warning signs, and/or other measures as necessary to prevent unauthorized individuals from entering the plant property and buildings. Fencing and a locked gate is used as a means to prevent unauthorized access to the facility as required.**

FGRICEMACTZZZZ - This emission unit is included in the ROP and is subject to the requirements of 40 CFR, Part 63, Subpart ZZZZ. Currently, the State of Michigan has not taken delegation of authority of this regulation for area sources. Therefore, a compliance analysis of FGRICEMACTZZZZ was not conducted at this time.

Conclusion – Based upon the on-site inspection and records review, AQD staff considers the facility to be in compliance with their current Renewable Operation Permit.

NAME _____ DATE 8/2/17 SUPERVISOR SN