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

B709323548

FACILITY: Aztec Producing Company, Inc.		**SRN / ID:** B7093
LOCATION: 335 Washington St., MANISTEE		**DISTRICT:** Cadillac
CITY: MANISTEE		**COUNTY:** MANISTEE
CONTACT:		**ACTIVITY DATE:** 10/28/2013
STAFF: Caryn Owens	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Field Inspection and Records Review		
RESOLVED COMPLAINTS:		

On Monday, October 28, 2013, Ms. Caryn Owens of the DEQ-AQD conducted a scheduled onsite inspection of the Aztec Producing Company located at 335 North Washington Street in Manistee, Michigan. Ms. Owens met with Mr. John Ward, the Plant Superintendent, for a field inspection of the site. Ms. Owens gave Mr. Ward the DEQ Inspection Brochure for his knowledge. The inspection and records review were conducted to determine compliance with permit MI-ROP-B7093-2009. The facility is an area source in accordance with 40 CFR 63 Subpart ZZZZ (RICE MACT) and 40 CFR 63 Subpart HH for Oil and Natural Gas Production facilities, which the DEQ does not have delegated authority. Therefore, the RICE MACT and MACT for Oil and Natural Gas Production Facilities were not addressed in this field inspection. Additionally, the facility would be subject to 40 CFR Part 60 Subpart KKK, Subpart Kb, and LLL, but the facility commenced construction prior to the effective date of the regulation and has not been modified. The above ground storage tanks at the facility are not subject to 40 CFR Part 60 Subpart Kb because they were used prior to ownership of the Property.

The site consists of two main buildings and some additional out buildings for storage and a vapor recovery unit. The main building in the central portion of the site consists of separation equipment, a couple heater treaters, and amine process equipment. The other main building on the southwest portion of the site consists of a 3-stage engine compressor, a compressor used for the refrigeration process, and a glycol dehydrator. Three flares are onsite as back-up emergency flares, and six above ground storage tanks (approximately 400 bbl). Only three of the above ground storage tanks are in operation. The process equipment and above ground storage tanks are connected to vapor recovery units and back-up emergency flares. The site contains two wells and one disposal well. One of the wells is from the Antrim formation and the other well is from the Niagaran formation. Four wells located off site flow to the site for processing and sales. The process at the site consists of the gas wells coming into the site and flowing through separators where the gas, brine water, and crude oil are separated from the gas stream. The water and crude oil are separated and sent to the above ground storage tanks, and the natural gas is sent to the compressor for the first stage of compression. The natural gas then goes through the amine process to sweeten the gas, and is sent back to the compressor, then goes thru the refrigeration process where the natural gas liquids (NGLs) are separated out, then compressed again and sent to the sales line. A glycol dehydrator is used to remove the water from the natural gas stream prior to refrigeration process.

At the time of the inspection the 3-stage compressor, a 215 hp rich burn CAT 3406 NA engine, was operating at approximately at 1,068 RPMs, 60psi, and approximately 220°F. The refrigeration compressor, a 200 hp rich burn CAT G342 engine, was operating at approximately 857 RPMs, 35psi, and 220°F. A flame was observed during the inspection on the SVFLARESTACK with a slight grayish smoke, approximately 5 percent opacity. According to Mr. Ward, maintenance was being conducted on the vapor recovery unit during the inspection, so the vapors were routed to the emergency flare stack. By the end of the inspection, the flame was no longer present on the SVFLARESTACK. No emissions or flames were observed from the SVSO2STACK or the emergency flare connected to the glycol dehydrator. Mr. Ward stated that all three of the emergency flares at the site contain continuously burning pilots lit by sweet natural gas. Slight petroleum odors were present throughout the inspection, but not considered a nuisance.

Compliance Evaluation

EUDEHY: EUDEHY underlying applicable requirements are based off 40 CFR Part 63 Subpart HH requirements. The site is an area source and the State of Michigan has not been given delegated authority of 40 CFR Part 63 Subpart HH for area sources. Therefore, a compliance analysis of EUDEHY was not conducted for this site.

FGSOURGASPLANT: FGSOURGASPLANT includes the natural gas sweeting process (amine process), refrigeration process of the NGLs, glycol dehydrator, and above ground storage tanks. The emission

units include EUSWEETENING, EUTANKS, EUDEHY, and EUNGLPLANT, and uses vapor recovery, reboiler fire tube, emergency bypass flare (SVSO2STACK), and glycol dehydrator flare for pollution control measures.

I. Emission Limits:

I.1 Sulfur dioxide (SO_2) is permitted to 1,350 lbs per day based on a 24-hour average. According to the records reviewed, SO_2 was reported between 0 – 215 lbs per day based on a 24-hr average.

II. Material Limits: Not applicable for FGSOURGASPLANT.

III. Process/Operational Restrictions:

III.1 The acid gas stream is sent to the amine reboiler to be combusted, and in case of an emergency, the acid gas is sent to the bypass flare.

III.2 Alarms are located at each flare in case the pilot light is extinguished. The plant would be shut down if the bypass flare could not be restarted within one hour of operation.

III.3 As stated above, FGSOURGASPLANT is connected to a vapor recovery system, a reboiler burner, and/or the bypass flare.

III.4 As stated previously, a vapor recovery system is connected to the above ground storage tanks containing brine water and sour crude oil. If the vapor recovery unit is down, the recovery unit vents to the flare.

III.5 All inflowing streams to FGSOURGASPLANT shall be shut off if the concentration of hydrogen sulfide in the building is greater than 20 parts per million. A warning goes off it the concentration is at 10 ppm of H_2S, and then if the concentration of H_2S goes above 20 ppm, the facility will shut-in. Operation of FGSOURGASPLANT may be resumed only after successful corrective measures have been applied.

IV. Design/Equipment Parameters: Not applicable for FGSOURGASPLANT.

V. Testing Sampling:

V.1 The operator checks the flare several times per day. They have not had any problems or concerns in the past year.

VI. Monitoring/ Recordkeeping:

VI.1 Based on the records reviewed, the mass flow rate of hydrogen sulfide (H_2S) going into the sweetening process was between 0 – 114 lbs per day. The H_2S concentration was between 1,900 and 2,000 parts per million.

VI.2 Please refer to special condition I.1 above.

VI.3 The Company monitors and records the amount of gas produced on a daily basis. The amount of gas processed on a daily basis ranged between 0 -637mcfd.

VI.4 The facility has the proper monitors and alarms for H_2S in the sour gas sweetening process building that continuously monitors the concentrations of H_2S.

VI.5 The facility has had no malfunctions or abnormal conditions during the past year.

VII. Reporting:

VII.1-4 Monthly, Semi-annual, and annual reporting for ROP certification were submitted to the DEQ in a timely manner.

VIII. STACK/VENT RESTRICTIONS

VIII.1 & 2 The flare is required to be 75 ft tall and the SO_2 stack is supposed to be 150 ft tall and no more than 12 inches in diameter. The Flare and SO_2 stack appear to be of the appropriate dimensions.

IX. OTHER REQUIREMENTS

IX.1 The facility has fencing and signage to keep unauthorized people out of the plant.

Evaluation Summary

The activities covered during this full compliance evaluation (FCE) appear to be in compliance with the MI-ROP-B7093-2009. Review of the records for the facility indicates the facility was in compliance with emission limits in accordance to the current ROP. No further actions are necessary at this time.

NAME Dwyn Dews DATE 11/4/13 Revised 12/16/13 SUPERVISOR