

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection

N225962871

FACILITY: TUSCOLA ENERGY INC		SRN / ID: N2259
LOCATION: WALAT FARMS ET AL A-2-26; Leon & Aerial Cosen 2-26 and 3-26, WISNER TWP		DISTRICT: Bay City
CITY: WISNER TWP		COUNTY: TUSCOLA
CONTACT: Jeff Adler ,		ACTIVITY DATE: 04/21/2022
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site inspection.		
RESOLVED COMPLAINTS:		

An onsite inspection and records review was conducted by Air Quality Division (AQD) staff Adam Shaffer (AS) of the Tuscola Energy, Inc. (TE) site specifically the Walat Farms et al A-2-26, Wisner Township, Michigan location. Applicable records were requested and received on April 20, 2022, to verify compliance with permit to install (PTI) No. 68-11. A joint in-person inspection consisting of AQD staff AS and Oil, Gas, and Minerals Division (OGMD) staff Kasey Todd (KD), to verify onsite compliance was completed on April 21, 2022.

### Facility Description

TE is an oil production company with various oil well sites located in Michigan. This site is in operation with PTI No. 68-11. The facility is a true minor source for all criteria pollutants.

### Compliance Evaluation

A request was sent to Mr. Jeff Adler, President, for various records required by PTI No. 68-11. The records were received on April 20, 2022 and will be discussed further in this report. An onsite inspection of the site was completed on April 21, 2022. AQD staff AS and OGMD staff KD arrived in the area at approximately 9:45am. Weather conditions at the time were cloudy skies, temperatures in the low 50's degrees Fahrenheit, and winds from the west / southwest. Upon arriving onsite, AS and KD met with Mr. Adler, and several other staff associated with TE, who provided a tour of the site and answered site specific questions. Requested records were provided by Mr. Adler.

As mentioned above, TE is an oil production company. The various stages of onsite processes were reviewed during the inspection and will be discussed further below. At the time of the inspection, the status for each well associated with this site is listed below.

Leon & Aerial Cosens 2-26 – This wellhead was observed but not in operation at the time of the inspection.

Leon & Aerial Cosens 3-26 – This wellhead was observed and noted to be in operation at the time of the inspection.

Walat A-2-26 – This wellhead was observed, however, was stated by staff to have not run in two years.

### PTI No. 68-11

#### **FGFACILITY**

This flexible group is for the oil production facility referred to as the Walat Farms et al A-2-26 and is for all process equipment source-wide including equipment covered by other

permits, grand-fathered equipment, exempt equipment and control equipment. Emission units for this flexible group are EUCOSENS2-26TANK, EUCOSENS3-26TANK, EUWALAT2-26TANK, EUCOSENS2-26SEP, EUCOSENS2-26SEP, and EUWALAT2-26SEP.

Per Special Condition (SC) II.1, this flexible group is subject to a hydrogen sulfide material limit of 216 lbs per day. Records were requested and reviewed for select time periods. Based on the records reviewed, TE appears to be meeting this material limit.

Per SC III.1, the permittee shall not use FGFACILITY to process any wells other than the following without prior notification to and approval by the AQD: a) Walat A-2-26 oil well, b) Leon & Aerial Cosens 2-26 oil well and c) Leon & Aerial Cosens 3-26 oil well. At the time of the inspection, only the three wells mentioned were for the site.

Per SC IV.1, on and after November 30, 2011, the permittee shall properly operate both of the following: a) a continuously burning pilot flame at the flare. Pilot fuel shall only be sweet gas. b) a mechanism that will automatically shut off fluid flow into FGFACILITY in the event that the flare pilot flame is extinguished. Furthermore, the three wells authorized in this permit shall shut down before the pressure reaches a company-determined safety set-point. The permittee shall not resume fluid flow into FGFACILITY unless the flare pilot flame is re-ignited and maintained. TE staff verified that propane is used to fuel the pilot flame. The facility is equipped with a profire system that monitors the pilot flame temperature which is used to light the flare that controls the hydrogen sulfide emissions. The setpoint temperature for the pilot flame is 200°F. If the temperature of the pilot flame falls below this, the profire system will shut down flow from the wells into the facility. The wells will continue to attempt to pump oil into the facility until the high pressure setpoint on the murphy switch is exceeded at which point the wells will turn off and the site is shutdown. Company staff stated that each well is attached with a murphy switch. Each murphy switch has the low pressure setpoint at 0 lbs and the high pressure setpoint at 50 lbs.

A partial shutdown was completed during the inspection to verify the profire system is operating satisfactorily. The pilot flame was shut off at 10:14am and the pilot flame temperature was 335°F. AQD staff AS observed the pilot temperature eventually fall below the 200°F setpoint, at which point the no flame alarm was observed blinking. It was noted that it took several minutes for the temperature to fall below the temperature setpoint. After the pilot flame temperature fell below the setpoint, the current flow rate into the facility was observed. Flow rates were observed to decline overall slowly, which company staff stated was due to the large distance between the site and the wellheads, unlike other sites. This appears acceptable and it was concluded at this time that the profire system appears to be operating properly. The pilot flame was turned back on and the flare flame that had went out during the partial shutdown relit. It was noted that the flow rates increased as soon as the pilot flame was turned on and the pilot flame temperature increased.

The following flow rates were recorded during the course of the inspection.

April 21, 2022, Approximately 10:02am

Flow Rate (MSCF/D) – 20, 19.8, 19.9

Flow Today (MSCF) – 5.6, 5.6, 5.6

Flow Monthly (MSCF) – 308.6, 308.6, 308.6

Flow Yesterday (MSCF) – 12.5, 12.5, 12.5

Per SC IV.2, the flare shall be properly engineered. The flare was noted on during the inspection and the pilot flame temperature was observed at 355°F. The shroud observed appeared acceptable. After further review, the flare appears acceptable.

Per SC IV.3, the permittee shall not operate FGFACILITY unless all emergency relief valves, all storage tanks, and all dehydrators are vented to a flare, an incinerator or a vapor recovery system. Speaking with company staff, all three tanks (EUCOSENS2-26TANK, EUCOSENS3-26TANK, and EUWALAT2-26TANK) and all three separators (EUCOSENS2-26SEP, EUCOSENS3-26SEP, and EUWALAT2-26SEP) were verified to be connected to the flare.

Per SC IV.4, the permittee shall not load out any of the following tanks unless a vapor return system is installed, maintained and operated in a satisfactory manner for the following tanks (EUCOSENS2-26TANK, EUCOSENS3-26TANK, and EUWALAT2-26TANK). At the time of the inspection, vapor return lines were observed for two of the three tanks. The tank (EUWALAT2-26TANK) did not have a vapor return line specifically associated with it, however, staff said that they would connect another return line when the tank was being emptied. Additionally, it was noted that this unit hadn't been run for approximately two years. It was noted that all three wells are sour gas wells. After further review, this condition appears to be being met.

Per SC VI.1, the permittee shall monitor and record the daily volumetric flow rate of sour gas going to the flare, and quarterly concentrations of hydrogen sulfide in the sour gas going to the flare with all three wells pumping. Daily flow rates were requested and provided for select time periods. After further review, TE appears to be keeping track of daily flow rates. The last three concentrations determined of hydrogen sulfide in the sour gas going to the flare with the wells pumping was requested and provided. Historically, testing had appeared to have been completed several times a year. A letter dated November 13, 2018, had been submitted to the AQD that had listed test results since 2015 and the hydrogen sulfide concentration percentages to be used for the rest of 2018 and through the summer of 2019 in applicable calculations.

In a subsequent letter dated August 6, 2021, to the AQD Bay City District Supervisor, TE had proposed annual testing and to take the median value result of the last four tests to be used when determining hydrogen sulfide concentrations that are used in applicable calculations. The proposed conditions were later approved on September 24, 2021. Also, historically the company had submitted to the AQD concentration values that it planned to use in calculations. It was noted that testing had not been completed in 2020. This was determined to have been related to the Covid-19 pandemic. After further review, this appears acceptable at this time. Overall, TE appears to be monitoring and recording the applicable items in a satisfactory manner.

Per SC VI.2, the permittee shall complete applicable calculations each calendar month. Records were requested and reviewed for select time periods. Upon review, the agreed H<sub>2</sub>S concentration after June 2021 was noted to be slightly higher than what was used in the records provided and an error was noted in the spreadsheet calculations. Moving forward the records shall be corrected. After further review, the records overall appear acceptable.

One stack is listed in association with this flexible group and was observed during the course of the inspection. Though the dimensions were not measured they appeared to be consistent with what is listed in PTI No. 68-11.

### Additional Observations

At the time of the inspection, the propane tank used to provide fuel to the pilot flame for the flare was at 54% full.

This site is equipped with a flame arrestor which will prevent a blowback from the flare to the oil /gas separators / tanks.

A hydrogen sulfide monitor was worn by AQD staff throughout the course of the inspection. No issues were noted.

### Conclusion

Based on the facility walkthrough, observations made, and records received, TE appears to be in compliance with PTI No. 68-11.

NAME adam J. Hoff

DATE 05/16/22

SUPERVISOR C. Stone