

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

N795547348

FACILITY: TUSCOLA ENERGY - NIXON - GARNER RD CPF		SRN / ID: N7955
LOCATION: GARNER RD BETWEEN CASS CITY RD AND M25, AKRON		DISTRICT: Saginaw Bay
CITY: AKRON		COUNTY: TUSCOLA
CONTACT: Jeff Adler, President		ACTIVITY DATE: 12/04/2018
STAFF: Matthew Karl	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection to determine compliance with PTI No. 97-09A.		
RESOLVED COMPLAINTS:		

On Tuesday (12/4/18) I (Matt Karl) conducted a compliance inspection at Tuscola Energy, Inc.- Nixon – Garner Road Crude Oil Production Facility (CPF) located on Garner Road in Wisner Township, Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Administrative Rules; Permit to Install (PTI) No. 97-09A. Mr. Jeff Adler, President, assisted by providing requested records. Mr. Andrew Kent and Mr. Derek Timmermann, MDEQ-OGMD, assisted me during the site inspection.

Facility Description:

The Garner Road Facility is an existing oil production facility that consists of both sweet and sour gas wells. A sour gas well is defined as a well in which hydrogen sulfide (H₂S) is present. Each well has an associated pump to bring the oil and gas to the surface. The oil and gas are pumped from each sour well to a separator where the oil is separated from the gas. The oil and gas pumped from the sweet well, Nixon 10, does not go to a separator, but directly to a storage tank. The sweet gas from this well and tank is used to light the pilot flame for the shared flare. The oil is routed to storage tanks while the gas is routed to a 38-foot-tall flare. The wells that are associated with this facility are included in the table below:

Well Identification	Well Type	Separator	Storage Tank
Nixon 7-23	Sour Well	EUSEPNIXON07	EUTANKNIXON07
Nixon 8-23	Sour Well	EUSEPNIXON08	EUTANKNIXON08
Nixon 9-23	Sour Well	EUSEPNIXON09	EUTANKNIXON09
Nixon 10-23	Sweet Well	Sweet gas is used for the pilot flame in flare.	EUTANKNIXON10
Nixon 11-23	Sour Well	EUSEPNIXON11	EUTANKNIXON11
Nixon 12-23	Sour Well	EUSEPNIXON12	EUTANKNIXON12

Site Inspection:

Andrew Kent, Derek Timmermann and I arrived on site at approximately 10:15. At the time of our inspection the flare was not operating. There was a slight rotten egg smell detectable upon exiting our vehicle. Andrew Kent's 4-gas meter detected 0.5 ppm H₂S near the separator and storage tanks. We noted that there was a wire hanging down from the flare. The thermocouple should be checked for maintenance purposes. I reviewed the on-site flow meter and recorded the following information: flow today = 0 MSCF, flow yesterday = 0 MSCF.

Records Review:

I sent Jeff Adler a records request on Wednesday (12/5/18) via email. Jeff Adler suggested we meet at his office early the following week so that he could finish entering the data for November. On Monday (12/10/18) I met with Jeff Adler and obtained the following records, which are available in the District office files:

- Flow, H₂S emissions Nixon-Garner Rd CPF (N7955) from 1/1/18 to 11/30/18

FGOILPRODUCTION:

SC VI.1. The permittee shall monitor and record all of the following at the frequency indicated:

- a) Volumetric flow rate of sour gas going to the flare- daily
- b) Annual readings of the concentration of hydrogen sulfide in the produced sour gas from the wells while being pumped which is representative of the three wells sending the highest volume

of gas to the flare- annually. Both of the following are acceptable means of determining the concentration of hydrogen sulfide in the sour gas:

- I) Colorimetric detector tube**
- II) Laboratory gas analysis**

I reviewed the record "Flow, H2S emissions Nixon-Garner Rd CPF (N7955) from 1/1/18 to 11/30/18." The volumetric flow rate of sour gas going to the flare ranged from 0 to 40.981 MSCF, with an average flow rate of 7.361 MSCF over the time period of the records reviewed. The volumetric flow rate to the flare is directly related to the mass flow rate of H2S to the flare. Days where the volumetric flow rate was greater than 35 MSCF are where the mass flow rate of H2S was greater than 232 lbs./day. The latest annual reading of the concentration of H2S in the sour gas was performed on 10/10/18 and was 8.0% H2S.

SC VI.2. Each calendar month the permittee shall calculate the mass flow rate of hydrogen sulfide (H2S) that went to the flare each day using all of the following:

- a) The most recently determined concentration of hydrogen sulfide in the sour gas**
- b) The individual daily volume of sour gas that went to the flare**

I reviewed the record "Flow, H2S emissions Nixon-Garner Rd CPF (N7955) from 1/1/18 to 11/30/18." The most recent annual reading of the concentration of H2S was performed on 10/10/18 and was 8.0% H2S. The mass flow rate of hydrogen sulfide (H2S) that went to the flare each day ranged from 0 to 289.162 lbs/day and averaged 51.938 lbs/day over the time period of the records reviewed. SC II.1. specifies that the mass flow rate of hydrogen sulfide going to the flare shall not exceed 232 pound per day. There were three days over the period of records reviewed that exceeded this emission limit. The information for these days is contained in the table below:

Date	Volumetric Flow Rate (MSCF)	Mass Flow Rate of H2S (lbs/day)
8/24/18	37.776	266.547
8/27/18	40.981	289.162
8/28/18	37.0276	261.267

A violation notice will follow for the emission limit exceedance(s).

Summary:

At the time of our 12/4/18 inspection it appeared that Tuscola Energy, Inc. – Nixon- Garner Road CPF was in non-compliance with PTI No. 97-09A.

NAME Matthew N. Kord

DATE 12/19/18

SUPERVISOR C. Hare