

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

N785348119

FACILITY: MUSKEGON DEV CO-KLIMEK/STAWOWY-OIL PROD FAC		SRN / ID: N7853
LOCATION: T19N R4E SECTION 17, STERLING		DISTRICT: Saginaw Bay
CITY: STERLING		COUNTY: ARENAC
CONTACT: Bennett Myler ,		ACTIVITY DATE: 03/12/2019
STAFF: Meg Sheehan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY19 scheduled site inspection		
RESOLVED COMPLAINTS:		

On Tuesday, March 12, 2019, a scheduled site inspection was conducted by AQD District staff at Muskegon Development Company's Klimek/Stawowy (MDCKS) Oil Production Facility in Sterling, Arenac County. The DEQ was unaccompanied for this inspection. Site inspection activities were conducted with the intent of confirming compliance with Permit to Install (PTI) No. 273-07.

FACILITY DESCRIPTION

The MDCKS facility is a synthetic minor source for sulfur dioxide (SO₂) and a true minor source for all other criteria pollutants. It is an unmanned sour oil production facility located off Kocot Road to the north, is bounded to the east by Melita Road, and to the south by Stewart Road (attachment 1). Adjacent properties include residential, agricultural and oil and gas production fields. The facility was constructed in 2007, is gated and operates as necessary for production activities.

PROCESS DESCRIPTION

Equipment onsite includes a flare, two heater treaters, oil and water tanks, and three pumpjacks – each associated with a producing well. The Klimek 1-17 and Stawowy 1-17 are sour wells. The Wojtowicz 2-17 is a sweet well. The oil is produced using the pumpjacks and routed to the crude oil production facility. The oil and entrained gas are separated via the heater treaters. The produced gas is then routed to the flare while the oil goes to the tanks.

COMPLIANCE EVALUATION

EUFLARESYSTEM – 2.5 MMBtu/Hr, burns sour gas from heater treaters and tanks.

Material Usage Limits

1.1. Records provided by Mr. Bennett Myler with Muskegon Development Co. indicated the flare burned less than 384 pounds of hydrogen sulfide per calendar day from April 2016 through February 2019.

Equipment

1.2. The wells were not pumping at the time of the inspection, but the flare was in operation with minimal visible emissions.

1.3. A produced gas flow monitor provides instantaneous reading of flow as well as previous day and monthly flow rates. The monitor showed a produced gas flow rate of 9.6 mscf/day. The daily flow rate is also recorded by operators during their daily inspection of the site.

Monitoring

1.4. The hydrogen sulfide content of the gas stream is tested once per month and used (along with the daily volumetric flow rate of gas) to calculate the amount of hydrogen sulfide burned by the flare per calendar day.

Recordkeeping/Reporting/Notification

1.5. Records of each calendar day hydrogen sulfide mass flow rate are maintained and were provided upon request. Records from April 2016 through February 2019 were reviewed and appeared to meet the requirements of this condition (attachment 2).

Stack/Vent Restrictions

1.6. The flare is required to be at least 40 feet tall. Based on visual observations, it appeared to meet this

requirement.

FGTREATERS – Two 350,000 Btu/Hr vertical heater treaters, used to separate produced oil, gas and water. The produced oil and water are stored in tanks (FGTANKS), and the sour gas is sent to the flare.

Material Usage Limits

2.1. The permittee is not allowed to burn sour natural gas in FGTREATERS. Propane is fired in the heater treaters, as well as in the engines associated with the pump jacks.

FGTANKS – 400 bbl oil storage tanks and a 210 bbl water storage tank routed to the vapor return system.

Equipment

3.2. The permittee must install and maintain a vapor return system before load-out of any oil storage tank can occur. The vapor return system appeared to be installed and operational.

FGFACILITY

Emission Limits

4.1. Based on the records that were provided by Mr. Myler, the source is well below the SO₂ limit of 89 tpy for the 12-month rolling time periods that were examined.

Process/Operational Limits

4.2. The permittee must notify the AQD District Supervisor if they intend to process any wells at the facility other than the Klimek 1-17, Stawowy 1-17, and Wojtowicz 2-17. At the time of the inspection it appeared as though these were the only wells being processed by the facility. A notification to process a different well has not been received by the district office to date.

Equipment

4.4. The permittee cannot operate FGFACILITY unless all emergency relief valves, storage tanks, and dehydrators (none present) are vented to a flare, an incinerator (none present) or vapor recovery system. All emission units onsite appeared to either be vented to the flare or the vapor recovery system.

4.5. The permittee shall operate a continuously burning pilot flame at the flare. As previously stated, the flare was in operation at the time of the inspection. A shutdown mechanism is in place in the event of pilot flame failure. In addition, Murphy switches (pressure sensors) are located at each well to facilitate ceasing pumping actions as a result of the shutdown mechanism being triggered. The Murphy switches at each well head were checked.

4.6. The permittee shall install and maintain fencing, warning signs, and/or other measures as necessary to prevent access to the flare by unauthorized individuals. The facility is gated with warning signs posted at the entrance, by the tanks, flare, and wells.

Monitoring

4.7. Visible emissions surveys are conducted once per calendar day by an operator during their daily inspection of the facility.

Recordkeeping/Reporting/Notification

4.8. Records of the daily visible emissions surveys were provided by Mr. Myler (attachment 3). A section is included on the form filled out by operators to note any corrective actions that were taken. Records from April 2016 through February 2019 were reviewed, and apparently no excessive visible emissions were noticed/corrective actions required during this time frame.

4.9. Monthly and 12-month rolling SO₂ emissions records were reviewed for April 2016 through February 2019. The emissions appeared to remain below 89 tpy for the time frame.

COMPLIANCE DETERMINATION

At this time, the Muskegon Development Company's Klimek/Stawowy Oil Production Facility appears to be in general compliance with PTI 273-07 and all applicable rules and regulations.

NAME Meg Sheehan

DATE 4/8/19

SUPERVISOR C. Hase

(MACES was
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