

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

N092437708

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| FACILITY: MUSKEGON DEVELOPMENT--HEADQUARTERS--Sour Zone CPF | | SRN / ID: N0924 |
| LOCATION: SE SE Section 29, T21N, R3W, HOUGHTON LAKE | | DISTRICT: Gaylord |
| CITY: HOUGHTON LAKE | | COUNTY: ROSCOMMON |
| CONTACT: Mike Mesbergen , | | ACTIVITY DATE: 11/18/2016 |
| STAFF: Bill Rogers | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MAJOR |
| SUBJECT: FCE Inspection | | |
| RESOLVED COMPLAINTS: | | |

On November 18, 2016, I inspected the Muskegon Development Headquarters Field Sour Zone CPF in SE SE Section 29, Township 21 N, Range 3 W, south of Houghton Lake in Roscommon County, just north of the county line. Earlier that week Mr. Mike Mesbergen of Muskegon Development sent me records as required by the permit, MI-ROP-N0924-2014. I did not find any violations during my inspection or while reviewing the records.

Permit MI-ROP-N0924-2014, Table EUFLARESYSTEM, Condition I.1 sets a limit of 28.78 pounds Sulfur Dioxide per hour. Monthly SO2 emission reports in our files, as reviewed by Gorla Torello, state that SO2 emissions are below this limit, in compliance with the permit condition.

Condition III.1 requires sweet gas or propane fuel for the flare pilot. There is a propane tank on site to provide propane; in addition, there is what appears to be a small dehydrator or gas sweetening scrubber near the oil storage tanks. Past records mention a gas sweetening system on site. In any case, the facility has the means to supply sweet gas or propane to the flare pilot, which indicates probable compliance with the permit condition.

Condition III.2 requires a continuous pilot at the flare. I was not able to see a pilot flame; however, the flare was burning, which indicates that a lit pilot had to be present to start it. This would comply with the permit condition.

Condition III.3 requires the flare system be installed and operating properly. It was installed and operating, and appeared to be operating properly, in compliance with the permit condition.

Condition III.4 requires processing only those wells about which Muskegon Development has informed AQD in advance. In a phone conversation November 14, 2016, Mr. Mesbergen told me the wells processed are only the same ones which the facility has processed for the past couple of years.

Condition III.5 requires a vapor return system on the truck load-out. I saw what I believe to be the vapor return lines. They appear to be installed and operating properly.

Condition III.6 requires an AQD-approved Malfunction Abatement Plan. Our files contain a MAP for this facility. We approved it September 1, 2010.

Condition IV.1 requires relief valves and storage tanks to vent to the flare. Pipes for this purpose are in place.

Condition IV.2 requires a device to monitor gas flow rate to the flare. The company's monthly SO2 emission reports contain volume measurements which would indicate there is a volume measuring device.

Condition V.1 requires daily non-certified opacity observations. Example copies of the log sheet where these observations are recorded are attached.

Condition V.2 requires H2S concentration measurement by colormetric tube or equivalent. The records, attached, include the values recorded from colormetric tube measurements.

Conditions VI.1, 2, and 3 require recording the volume of gas burned in the flare each day, the mass flow rate of hydrogen sulfide to the flare, and sulfur dioxide emissions per day. Monthly SO2 emission reports in our files include this information.

Condition VIII.1 requires a minimum flare height of 50 feet and a maximum diameter of 4 inches. The flare appeared to satisfy this permit condition.

Condition IX.1 requires fencing and warning signs. Fencing and warning signs were present.

I arrived on site in mid-morning. There was nobody at the facility. The flare was operating. There was generally no opacity in the flare beyond the end of the flames although once or twice I saw perhaps 5-10% black opacity for a fraction of a second.

Maintenance appeared adequate. I didn't notice any spills or leaks. I could smell a Level 2 (distinct and definite) hydrogen sulfide and crude oil odor near the storage tanks, but it was not very strong (and my personal H2S monitor didn't register anything).

The facility includes a device which appears something like a glycol dehydrator; it may be the gas sweetening scrubber referenced in inspections in years past. There is also a propane tank near this scrubber or heater. It is in an unlined berm. It is not fenced in. It has no warning signs indicating H2S is present.

The tank battery contains three tanks, two of the standard 400 barrel size and one of the same diameter but about half the height, therefore probably 200 barrel size. The tanks appeared to be well maintained and are located inside a berm. Pipes from the tops of the tank appeared to lead to a vapor return line at the truck load-out point and also to the facility flare.

The facility flare is well to the east of the rest of the equipment. It is inside a large fenced area. The fence is tall and appeared well maintained.

Note on location: The facility sign gives location as NE SE SE of Section 29; our database only says SE SE. It is near the Muskegon Development Field Office, a mobile home-like structure with equipment yard and the only such structure in the area. See attached map.

NAME William J Rogers Jr

DATE 11/23/2016

SUPERVISOR 