

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

N593745563

FACILITY: Merit Energy Company - Forest 24 CPF		SRN / ID: N5937
LOCATION: Canada Creek Rd, CHEBOYGAN		DISTRICT: Gaylord
CITY: CHEBOYGAN		COUNTY: CHEBOYGAN
CONTACT:		ACTIVITY DATE: 08/09/2018
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection and record review		
RESOLVED COMPLAINTS:		

On August 9, 2018, I inspected the Forest 24 CPF. I did not find any violations during my inspection.

The facility is covered by Permit to Install 650-96, originally issued to Shell Western E&P Inc. on November 13, 1996.

Permit 650-96, Special Condition 13 (the first Special Condition in the permit) restricts CO, VOC, and NOx emissions to no more than 89 tons per year each, based on a 12 month rolling time period. According to the monthly emission summary, attached, emissions per 12 month rolling time period were CO, 36.732 tons; NOx, 21.822 tons; and VOC, 8.443 tons. This complies with the permit limits.

Special Condition 14 limits each individual HAP to 9 tons per year and total HAPs to 22.5 tons per year. According to the monthly emission summary, attached, total HAPs for 12 month rolling time period were 4.140 tons. This is less than the limit for any individual HAP; if total HAPs are less than 9 tons, any individual HAP in that total must also be less than 9 tons, in compliance with the permit condition. This is also less than the 22.5 tons per year limit on total HAPs, in compliance with the permit condition.

Special Condition 15 requires calculating emissions monthly using emission factors specified in Appendix A of the permit, unless better data is available. Emission factors used are higher than those in Appendix A; since the company could have used Appendix A, this is acceptable.

Special Condition 16 requires recording monthly fuel consumption, monthly crude throughput in barrels, monthly hydrocarbon liquid trucked, and glycol circulation rate. All of these quantities are on the attached monthly emission summary. This complies with the permit condition.

Special Condition 17 requires monthly reports of oil and gas produced be kept at a location acceptable to AQD. The company was able to send us this information promptly upon request, so the location is acceptable.

Special Condition 18 requires reporting annual emissions to the emission inventory system. The company did this for the past year. This complies with the permit condition.

Special Condition 19 requires maintenance, and a maintenance log. Exact maintenance required is not specified. A page from the maintenance log is attached. This complies with the permit condition.

Special Condition 20 requires that operation of a crude oil or condensate storage tank larger than 952 barrels must have a pollution control device installed and operating properly. The largest tank I saw on site was 400 barrels, therefore this condition is not applicable.

Special Condition 21 limits bypassing of any air pollution control device to 48 hours per event and 144 hours per year. The facility appears to no longer have any pollution control devices, so this condition is not applicable.

Special Condition 22 requires the operator to determine whether the facility is subject to NSPS KKK, for Onshore Natural Gas Processing Facilities. This condition would have had to be met back in 1996 when the permit was issued. I don't know whether the company determined at that time whether they were subject. The facility has no refrigerated fractionation equipment that I could see, and apparently no storage tanks for condensate or natural gas products. If my observations are correct this facility cannot process natural gas as defined by NSPS KKK, and is therefore not subject.

Special Condition 23 requires running stack tests if AQD asks. AQD did not do so within the past several years at least.

Special Condition 24 requires processing only sweet natural gas. I did not see or smell any evidence of sour gas being processed at the facility.

COMMENTS:

The facility includes the following equipment, starting at a tank battery and going around the facility clockwise:

1. A tank battery with four standard 400 barrel storage tanks. Three of these were labeled as crude oil, the fourth as produced water. According to previous inspection reports these tanks are controlled by a Vapor Recovery Unit (VRU). I did not find any VRU. While the tanks were all plumbed to a header to catch anything that might be emitted by them, the header appeared to end in a cut-off pipe exhausting horizontally to the ambient air. It appears, therefore that the VRU has been removed. This concerns me, but as Special Condition 20 of PI 650-96 only requires a control device for a tank of greater than 952 barrels, it appears that this is not a violation of the permit.

The tanks were somewhat rusty. They were located inside a metal-walled, lined berm.

-Small tanks NE of the tank battery: Two 300 gallon drum on stilt style tanks and an elevated 55 gallon drum. One of the tanks was only labeled as flammable, one as "Techi-Solv 181." The 55 gallon drum was labeled as "Techni-Hib."

2. Along the north side of the facility, a row of five large process heaters. These appeared to be "heater treaters," devices used to heat crude oil to force out water vapor. Three of them were whole. Two were opened up, with the north end and associated exhaust stack missing. I did not see any specification plates which would allow me to find their heat input capacity or other information.

3. Along the east side of the facility, a long shed which seems to be the header shed for all the wells producing into this facility. It appeared that several wells had been disconnected, as many of the lines running into this building simply ended, open at the ends, in midair once inside the walls. This looked like a possible hazard, however, so I did not enter this building to examine things more closely.

4. Near the SE corner of the facility, also near the compressor shed, a mid-sized oil field tank with a vertical stack on top of it, exhausting unobstructed vertically upward. It was not labeled, but I would guess it is set up to control facility blow-down if it becomes necessary to release gas being pressurized here.

5. One small natural gas-fired compressor engine, with no catalytic oxidizer or other control device that I could see. The engine looked like a Waukesha. According to permit, the facility has a Waukesha F2895G in-line 6 cylinder engine rated at 315 hp; this is not inconsistent with what I saw. The engine was running slowly, chugging, but not abnormally loud. There was no unusual vibration, no opacity, and no odors. According to the control panel it was running at 581 RPM. Engine oil pressure was 30 PSI, engine water pressure was 6 psi, engine oil temperature 200, engine water temperature 190.

The exhaust leaves the shed through the wall to a horizontal muffler. After that it goes to a pipe elbow and is directed unobstructed vertically upward. The exhaust appeared to be perhaps 8 or 9 inches diameter at an elevation of about 18 feet.

-Outside the shed, two linked pressure tanks of a type often used to contain propane. However, the top tank was labeled Compressed Air. Since the tanks are linked by pipes, if one contains compressed air, they both do.

-Inside the shed, two oval metal tanks and one 300 gallon drum on stilts tank. The oval tanks were labeled Chevron Regal REO ISO 150 and Chevron HDAX 5200 Low Ash Gas Engine Oil. The 300 gallon drum tank was labeled Shellzone All Season Antifreeze.

Along the south side of the facility:

-Two 300 gallon drum on stilt tanks over a wooden berm structure. The tanks are labeled Methanol.

6. A shed containing a glycol dehydrator. The dehydrator appeared to have a condenser on the still exhaust, draining to an unlabeled drum tank outside the shed. Inside the shed there were oval metal tanks labeled as methanol and triethylene glycol. I did not find a data plate on the burner to allow me to determine its heat input or any other information about it.

The heater vent appeared to be about 6 inch diameter and 14 feet high, exhausting unobstructed vertically upward. The still vent was about 2 inches diameter at 12 feet above ground level, ending in a T shaped pipe fitting. The dehydrator was operating, since the heater was going; there was heat shimmer at the exhaust. However, I did not see any "steam" from the still vent or smell any glycol odors.

Dehydrators are subject to a Federal Area Source MACT, but AQD has not been delegated compliance responsibility for them. Therefore I did not attempt to find compliance with the MACT.

7. Two more large process heaters. One has had the stack removed and the hole where the stack was blocked by plywood.

Comments:

Maintenance appeared fair. I didn't notice any odors except a mild crude oil odor near the large tank battery and again in the header shed. I didn't see any stained soils or other evidence of spills.

NAME William J Rogers L

DATE 8/10/18

SUPERVISOR 

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