

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

P081740438

FACILITY: PEASE 20-134		SRN / ID: P0817
LOCATION: 12001-12499 E. R Avenue, SCOTTS		DISTRICT: Kalamazoo
CITY: SCOTTS		COUNTY: KALAMAZOO
CONTACT: Russ Clark , Field Operator		ACTIVITY DATE: 06/16/2017
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Unannounced scheduled inspection		
RESOLVED COMPLAINTS:		

Staff (Monica Brothers) arrived on-site at about 2:20pm. PEASE 20-134 is an oil well with associated oil storage tanks and other associated equipment that was constructed about two years ago. I met with Russ Clark, who is the field operator for both this site and PEASE 20-24. I introduced myself and gave him my business card. I told him that since I had already received the required records for both sites from Ed Higuera, I would simply be looking for Russ to go through the process at the facility and to answer any questions I had on what I observed.

Russ first showed me the oil well itself. It was operating at the time, and I noticed a small (55-gallon) drum of liquid that had a line running from it and down into the well. I asked Russ what it was and what it was used for, and he said that it, Tretolite, is a demulsifier that is used to help separate the oil from the water. Russ said that they go through about a gallon/day. The SDS is attached to this report. This material gets pumped down into the well, and then gets brought back up with the oil. After the oil has been pumped up to the surface, it goes through underground piping to the separation equipment, which consists of a line heater and heater treater. Russ said that the line heater was not being used at the moment because there was just not enough oil production for it to be needed. If the production increases in the future, the line heater will then be used. There is also a 55-gallon drum of methanol in this area that is used in the winter to keep the gas from freezing, but it was not being used at the time of the inspection.

After the oil is treated and separated, the oil goes into two 400bbl (16,800 gallons each) storage tanks, and the water to a third 400bbl storage tank that is on-site. Russ said that the waste water from the process is hauled off-site and taken to a disposal well in Calhoun County. The storage tanks are considered exempt under Rule 284(f) for sour crude storage tanks, under 40,000 gallons per tank. The tanks are completely sealed and the entire system is enclosed so that any escaping gas gets sent to the flare. Displaced vapors during tanker truck loading are also sent to the flare. The flare is connected to a solar power sensor, which senses when the flare has been blown out by high winds. If this happens, there is an automatic striker that re-ignites the flare almost immediately. I asked Russ how they know how full the tanks were getting, and he said that they do have an automatic monitoring system for that, but that because of some scale build-up in the tanks, the monitoring system does not function properly. So, Russ has to take manual measurements of the tank fullness every so often.

I thanked Russ for his time and left the facility at about 2:40pm. This site was almost identical to the PEASE 20-24 site that I visited with Russ right before coming over and observing this site, so the time spent at this site was much shorter. The only major difference between this site and PEASE 20-24 is that this site does not use the scrubbing agent (RSI-05311) to reduce scale build-up in the system. Russ said that the production at this site was too low for them to be using it at this time.

#### Records:

This facility does not have a PTI and is using Rule 284(f) for their storage tanks and Rule 282(g) for the sour gas-burning equipment. Rule 282(g) requires that the actual emissions of sulfur dioxide not exceed 11b/hour, so I asked Ed Higuera, Vice President, to send me a sulfur analysis. The hydrogen sulfide ppm value is then used in the following calculation to determine the emissions of sulfur dioxide/hour.

$$1 \text{ Grain H}_2\text{S} = 15.967 \text{ ppm H}_2\text{S}$$

Facility currently produces about 3 Mcf/day (Production has gone down since start-up)

H<sub>2</sub>S concentration from wellhead= 1000 ppm (Ed said that they round up to be safe, so I rounded up the number in their sulfur analysis to 1000ppm.)

$$1000 \text{ ppm} / 15.967 = 62.63 \text{ grains}/100\text{cf}^3$$

$$(\text{MMcf/day}) * (\text{grains/100 cf}^3) * (2.7) = \text{lbs SO}_2/\text{day}$$

$$(0.003) * (62.63) * (2.7) = 0.51 \text{ lbs SO}_2/\text{day}$$

$$(0.51 \text{ lbs SO}_2/\text{day}) * (1 \text{ day}/24 \text{ hrs}) = 0.021 \text{ lbs SO}_2/\text{hr}$$

This calculation shows that they are under the 1lb/hour sulfur dioxide limit.

This facility is also subject to NSPS Subpart OOOO for Group 2 storage vessels because the potential to emit VOCs from these vessels is above 6 tons/year. Because of this, they report annually to the DEQ Kalamazoo District and EPA. This also makes them MAERS subject. They will begin reporting to MAERS for the 2017 calendar year.

The facility seemed to be in compliance at the time of inspection.

NAME *Monica R. A.* DATE 6/29/17 SUPERVISOR \_\_\_\_\_