

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

N624526470

FACILITY: ANR PIPELINE COMPANY WINFIELD DEHY PLANT		SRN / ID: N6245
LOCATION: 10680 N GREEN RD, HOWARD CITY		DISTRICT: Grand Rapids
CITY: HOWARD CITY		COUNTY: MONTCALM
CONTACT: Brad Stermer, Sr. Environmental Specialist		ACTIVITY DATE: 08/18/2014
STAFF: Steve Lachance	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection for FY '014. See CA_N624526470. (SLachance, 8/19/14)		
RESOLVED COMPLAINTS:		

On Monday, August 18, 2014, commencing at about 9:30 AM, AQD staff Steve Lachance (SL) performed an announced scheduled inspection with ANR representatives Mr. Brad Stermer (BS) and Mr. John Stickler (JS). (Since the site is typically unmanned, ANR had been contacted and a meeting time arranged.) No odors or opacity were noted. Weather conditions were calm, clear, and about 65 F. At the time of the inspection, none of the regulated equipment was in use; about 2.85 mmcf/hr natural gas was audibly flowing into storage; the dehydrator is most typically used after withdrawal of the gas. The formation is considered mature and "dry"; the demands on the dehydrator system are minimal.

Source Description

This facility removes impurities from natural gas as it is withdrawn from the ground. The natural gas is contacted with triethylene glycol in a reverse-flow absorption tower to remove water in order to meet the pipeline dew point specification. In addition to water, the glycol absorbs hydrocarbons from the gas. The rich glycol from the tower passes through a flash tank where light hydrocarbons are removed. The rich glycol then goes to the regeneration still where the water and glycol are separated by distillation. Hydrocarbons are also removed from the glycol. The regenerated glycol is then returned to the tower.

The VOC/HAP emission points are the flash tank and the still. The regenerator still emissions are controlled by a glycol cooled condenser.

In addition to the glycol dehydrator, there is an inactive, permitted soil remediation system on-site.

PTI 125-97 Glycol dehydration system used on natural gas as it comes out of the storage field, before being distributed.

Emission Limits –Special Conditions 13 - VOC limit of 323 lbs/day and 30.3 tons/year

Satisfactory

Comments: Records indicate calculated emissions of less than 6 lbs/day max, and less than 0.1 tons/yr.

Emission Limits –Special Conditions 14 - HAP limit of 9 tons/yr of a single HAP, 22.5 tons of all HAPS

Satisfactory

Comments: Records indicate HAPS < 1 ton/yr.

Testing –Special Conditions 15 - Stack test on demand

Satisfactory

Comments: No stack testing has been requested due to the mature, dry, low-impurity nature of the gas and this field.

Operational parameter –Special Conditions 16 - Shall use glycol dehydrator unless its equipped w/ a properly operated control

Satisfactory

Comments: The dehydrator was using a condenser for control; this site is unique in not also requiring a thermal oxidizer (TO).

Operational parameter –Special Conditions 17 - Shall not operate dehydrator unless equipped with flash tank

Satisfactory

Operational parameter –Special Conditions 18 - Shall not operate dehydrator unless condenser exhaust < 115F

Satisfactory

Comments: According to records, the daily temperature was never more than 66 degrees F.

Monitoring –Special Conditions 19 - condenser exhaust shall have temp monitor

Satisfactory

Comments: The exhaust ~~was~~ had a properly functioning temperature monitor. This is located on the outside, west wall of the glycol building. Not much to see here as the temperature is remotely monitored and logged at the Woolfolk Compressor Station.

Recordkeeping –Special Conditions 20 - Monitor and record temperature daily

Satisfactory

Comments: The temperature is monitored continuously at the Woolfolk station and recorded daily. Values are alarmed, and SL discussed Rules 910/912 with Mr. Stermer.

Stack –Special Conditions 21 - Stack with maximum diameter of 3"; exit point not less than 24'; vertical upward

Satisfactory

Comments: The stack appeared to be properly sized and oriented.

Operational parameter –Special Conditions 22 - If TO control, 1400F minimum

Comments: Not applicable; the gas is so dry, and the impurity levels so low, that TO control is not necessary. There is no thermal oxidizer on-site. Conditions 22 through 26 are not applicable for this site.

Stack–Special Conditions 27 - Flash tank stack must be min 24' height, max 3" diameter

Satisfactory

Comments: The stack appeared to be appropriately sized and oriented

Emission Limits –Special Conditions 28 - Dehydrator must not operate more than 4500 hours per year

Satisfactory

Comments: The dehydrator was has operated only in February, March and early April 2014 for a total of 1366.5 hours this year.

All requested records were current and readily available. Attached (**A**) are various Dehydration System Reports that specifically show; system operations on a daily or monthly basis; associated calculated emissions based on gas throughput and quality; total operating hours; and condenser stack temperatures. Based on the reported quality of the formation, gas, and minimal seasonal use of the system, calculated emissions are well below those allowed by permit.

SL reviewed the "Daily Check List of Glycol Plants" (Attachment **B**) with Mr. Stickler. Most parameters are of proper operational interest, but Date; Field Flow; and Condenser Stack Temperature are all directly pertinent to compliance with this permit. Importantly, these checks establish direct on-site assessment and care for the equipment in addition to remote monitoring/alarms.

PTI 164-09 for a soil remediation system (sparge/vapor extraction/combustion.)

The extraction system has not operated since August 2012. Sparging was discontinued in March 2014. Equipment is being maintain for possible future use, but continued groundwater monitoring is being done to assess closure of the site. See Attachment **C**.

Miscellaneous

A consent order for the site is still in effect (CO 11-1998), but it appears as though all steps have been completed. The consent order covers multiple ANR facilities, and incorporates a series of permits. For this facility, the consent order incorporates PTI #125-97 SL provided a copy of the consent order to Mr. Stermer; he'll evaluate the need to/benefit from seeking termination of this order.

The facility is not subject to the Natural Gas Storage and Transmission MACT for Glycol Dehydrators (Subpart HH) because it is not a major source.

Summary

At the time of the completion of the inspection, SL concludes that the facility is in compliance with applicable air quality rules and regulations.

NAME  DATE 8/19/14 SUPERVISOR 

