

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

N624555923

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: 10/27/2020
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY'21 inspection to determine the facility's compliance status with applicable air quality rules and regulations including PTI nos. 125-97 and 164-09.		
RESOLVED COMPLAINTS:		

On October 27, 2020, Chris Robinson (CR) from the Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) met with Mr. Brad Stermer, ANR Sr. Environmental Specialist to conduct an onsite inspection of the ANR Pipeline Company Winfield Dehydration Plant (Winfield, SRN N6245), located at 10680 North Green Road in Howard City, Newaygo County, Michigan. Per field work guidance this inspection was scheduled in advance to ensure proper staff would be onsite as well as to prepare for any Covid19 related entry procedures. Proper PPE and social distancing were maintained throughout the inspection. In addition, this facility is unmanned requiring any visit to be scheduled to ensure proper personnel are onsite.

The purpose of the inspection was again relayed to Mr. Stermer, which was to determine the Winfield Dehy station's compliance with respect to site specific Permit to Install (PTI) no. 125-97, general PTI no. 164-09 and any other applicable air quality rules and regulations. Per Mr. Stermer there have been no equipment modifications or additions since the last inspection conducted, which was conducted on February 6, 2018. Nor has there been any issues or major changes.

Weather conditions were mostly cloudy, approximately 36°F with east-southeast winds at 5mph (weatherunderground.com). No visible emissions or significant odors were observed at any time during this inspection, however the dehydration unit covered in PTI 125-97 and the remediation system covered in PTI 164-09 were not operating.

Facility Description

The purpose of the Winfield Dehy Plant is to remove impurities from natural gas as it's withdrawn from the underground storage reservoirs. The natural gas is contacted with triethylene glycol in an absorption tower to remove moisture in order to meet pipeline dew point specifications. In addition to moisture, 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 moisture and glycol are separated by distillation. Hydrocarbons are also removed from the glycol. The regenerated glycol is then cycled back to the tower for reuse.

The Volatile Organic Compounds (VOC) / Hazardous Air Pollutants (HAP) emission points are the flash tank and the still. The regenerator still emissions are controlled by a glycol cooled condenser.

Regulatory Evaluation

The Winfield Dehy Station is a Title V opt-out source for Hazardous Air Pollutants (HAPs). Operation of the emission units is done under permit to Install no. 125-97 and General PTI no. 164-09.

The facility is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Natural Gas Transmission and Storage Facilities MACT for Glycol Dehydrators promulgated in 40 CFR Part 63, Subpart HHH because it is not a major source.

Compliance Evaluation

A) PTI No. 125-97

Permit to Install (PTI) no. 125-97 is an opt-out permit limiting the facility's VOC and HAP emissions. The facility is subject to the emission limits per Special Conditions (SC) no. 13 and 14 listed below. Emissions data was provided covering the time period from November 2019 through October 26, 2020.

Pollutant	Limit	Calculated	Below
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			Limit?
VOC	323 lbs./day	Max monthly = 83.266 lbs. (February 2020) & annual total = 232.405 lbs.	Yes
	30.3 tpy (12-month rolling)	0.115 tons	Yes
HAP (Individual)	9 tpy (12-month rolling)	Max monthly = 0.017 tons (February 2020)	Yes
HAP (Aggregate)	22.5 tpy (12-month rolling)	Annual total = 0.048 tons	Yes

Special Condition no. 15 allows the AQD to request verification of VOC and/or HAP emission rates. Stack testing has not been requested due to the dry nature of the gas at this field nor is it being requested at this time.

Special Conditions no.16-21 and 27:

The glycol dehydrator's regenerative still is equipped with a condenser that is operated with an exhaust temperature of less than 115°F which is monitored continuously at the Woolfolk station. Exhaust temperatures are recorded on a daily basis, which are based on hourly averages. The facility does not have a temperature display on-site, therefore temperatures were not collected during the on-site visit conducted on October 27, 2020. However, the system was not operating. Based on records provided by Mr. Stermer exhaust temperatures range from approximately 38 DegF to 9.4 DegF. Records for when the system was most recently operated are attached.

The glycol dehydrator is also equipped with a flash tank. Exhaust gases from the flash tank and condenser are discharged vertically to the ambient air. Stack dimensions were not explicitly measured but appeared to meet the permit requirements of having a maximum diameter of 3-inches and height of not less than 24-feet above ground level. Per discussions with Mr. Stermer, both the flash tank and condenser are operated at all times that the glycol dehydrator is operated.

Special Conditions no 22-26 only apply to thermal oxidizers, which the facility does not have equipped to the dehydration unit.

Special Condition no. 28 limits the glycol dehydrator to 4,500 hours of operation per year based on a 12-month rolling time period. Records are attached. Based on these records the dehydrator operated for a total of 1,402.2 hours from November 2019 through October 26, 2020.

B) General PTI No. 164-09

The facility also retains a General Permit to Install for a soil remediation system that includes two thermal oxidizers. Per Mr. Stermer the remediation system has not operated in many years, however the facility would like to have it available just in case it is needed in the future.

C) MAERS

This facility was not selected for audit during FY'20. However, in order to meet the requirements of an FCE CR conducted a cursory review of this data on 10/29/2020. The facility is using MAERS & EPA emission factors as well as Mass Balance and "other" methods for calculating emissions. Supporting documentation was provided. Emissions are consistent with what has been submitted in the past, which are summarized in the table below.

Pollutant	Amount (tons)
CO	0.72
NOx	0.86
PM10	0.07
SO2	0.01
VOC	0.19

Conclusion

Based on observations made during the October 27, 2020 on-site inspection and records review, the ANR Pipeline Company Winfield Dehydration Plant appears to be in compliance with applicable air quality rules and regulations including the requirements established in PTI No. 125-97 and General PTI No. 164-09.

NAME 

DATE 11/5/2020

SUPERVISOR 