

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

N557855944

FACILITY: ANR Pipeline Co. - Winfield Compressor Station		SRN / ID: N5578
LOCATION: 21453 Tamarack 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: MAJOR
SUBJECT: FY'21 inspection to determine the facility's compliance status with applicable air quality rules and regulations including Renewable Operating Permit ROP-MI-N5578-2020.		
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 Compressor Station (Winfield, SRN N5578), located at 21453 Tamarack Road in Howard City, Montcalm 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.

The purpose of the inspection was again relayed to Mr. Stermer, which was to determine Winfield's compliance status with respect to Renewable Operating Permit ROP-MI-N5578-2020. A pre-entry meeting was conducted prior to arrival at ANR's Goodwell Compressor Station. Permits were reviewed. Per Mr. Stermer there have been no equipment modifications or additions since the last inspection, which was conducted on March 29, 2019. 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 none of the engines were operating. Per Mr. Stermer this station will most likely be abandoned in the next few years due to the smaller size of the gas field that it uses for storage.

Facility Description

TransCanada and the ANR Pipeline Company own/operate facilities throughout Michigan for natural gas transmission and storage. While Winfield is owned by TransCanada the ANR Pipeline Company operates this facility. Winfield is located in Winfield Township, Montcalm County in a remote rural area. It was constructed from 1971 through 1972. This facility consists of a compressor station and associated naturally occurring underground reservoir used for storing the natural gas. The compressor station consists of a gas-liquid separator, three (3) sweet natural gas fired only reciprocating engines (EUWF001-3) and auxiliary equipment. The reciprocating engines are equipped with natural gas compressors used to maintain pipeline pressure for transporting sweet natural gas into storage wells for temporary storage and for transporting natural gas to storage and distribution facilities located throughout Michigan. Prior to entering the pipeline, the natural gas is conditioned through the Winfield Dehydration Unit to remove moisture that accumulated in the gas stream from the underground reservoir. The Winfield Dehydration Unit is considered a separate facility (SRN No. N6245) since it is not "adjacent or contiguous" and is located several miles from this facility.

Emission Unit ID	Installation Date	Description	ROP Flexible Group
EUWF001	1971	Superior model 12VGT825; 1,500 hp high speed, four cycle, turbo charged, lean-burn, spark ignited natural gas-fired internal combustion reciprocating compressor engines used to compress natural gas into the storage reservoir during injection and into the pipeline during injection and into the pipeline during withdrawal.	FGWFREC
EUWF002	1972		
EUWF003			
Emergency Generator	Disconnected and Inoperable		
EUWBOILER	2013	Hi-Delta Boiler (1.26 MMBtu/hr)	FGMACTDDDDD

Regulatory Evaluation

Winfield is located in Montcalm County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

Winfield is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the Potential to Emit (PTE) of nitrogen oxides exceeds 100 tons per year (tpy) and the PTE of any single Hazardous Air Pollutant (formaldehyde) regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tpy.

Although EUWF001, EUWF002, and EUWF003 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed.

Potential renovation/asbestos removal and remediation projects at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Asbestos promulgated in 40 CFR Part 61, Subparts A and M.

Subpart ZZZZ of 40 CFR Part 63 regulates HAP emissions from existing, new, and reconstructed stationary reciprocating internal combustion engines (RICE) located at both major and minor sources of HAPs. However, there are no requirements under this standard for natural gas-fired lean burn engines that were constructed prior to December 19, 2002. The three compressor engines at the facility were installed prior to 2002 (EUWF001/1971, EUWF002/1972, & EUWF003/1972), and are natural gas-fired lean burn engines. Therefore, these engines are subject to this regulation but have no requirements.

New source standard of performance for stationary spark ignition internal combustion engines (40 CFR Part 60, Subpart JJJJ) does not apply to the compressor engines since they were ordered prior to December of 2006 and have not been modified.

EUWFBOILER is a natural gas fired boiler with a rated heat input capacity of 1.26 MMBTU/hr. It is exempt from New Source Review (NSR) permitting. Winfield is a major source of HAPs and, therefore, the boiler is subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD. The natural gas-fired water heaters on-site are not subject to this standard, as they are less than 1.6 MMBTU/hr and have a capacity of less than 120 gallons.

Compliance Evaluation

Except for the emergency generator, all emission units on-site are natural gas-fired only. The facility submitted semi-annual reports and annual certifications as required. No deviations were noted.

A) ROP-MI-N5578-2020

Source-wide Conditions: Asbestos NESHAP

As discussed with Mr. Stermer, asbestos records are maintained for 5 years, as required. No asbestos related work has taken place since the boiler was replaced in 2014, therefore no new waste shipment records are available nor was a notification required or submitted to AQD.

FGWFREC

All the engines located at Winfield are monitored and operated from the control room at the Woolfolk Compressor Station. Per discussions with Mr. Stermer, records are maintained for 5 years, as required. Records of operating hours and fuel usage are attached and summarized in the table below. Months with either no data or "0.00" represent months that a specific engine did not operate. Neither engine has operated since April 2020.

Year	Month	EUWF001		EUWF002		EUWF003	
		Operating Hours	Fuel Usage (MMSCF)	Operating Hours	Fuel Usage (MMSCF)	Operating Hours	Fuel Usage (MMSCF)
2019	Jan	330	2,541.44	133	1,046.68	--	--
	Feb	577	4,907.49	68	636.71	--	--
	March	31	219.09	78	707.70	--	--
	Aug	0	0.00	2	0.00	--	--
	Nov	150	1,155.23	<1	0.31	--	--
	Dec	24	144.06	328	1,942.85	--	--
2020	Jan	2	15.34	393	2,822.94	--	--
	Feb	0	0.00	552	4,227.83	--	--
	March	0	0.00	28	193.16	--	--

April	0	0.00	47	390.59	--	--
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The facility replaced an existing boiler in 2014 with a natural gas-fired 1.26 MMBtu/hr Delta Limited boiler (EUWFBOILER) which appears to be exempt from NSR permitting per Rule 282(b)(i). While the facility was preparing the 2019 ROP renewal application it was determined that the wrong Heat Input value had previously been used to determine the PTE of the engines and that EUWFBOILER is used for both heating the fuel for the engines and water for the station. Based on the corrected ratings, Winfield is actually a major source for HAPs and, therefore, the boiler is subject to the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD. Therefore, ROP flexible group FGMACTDDDDD was added to the ROP during the renewal.

A Notification of Compliance was received by the AQD on March 6, 2020 indicating that the boiler Tune-up was last conducted on September 24, 2019. Since EUWFBOILER has a heat input rating of less than or equal to 5 MMBtu/hr, tune ups are required every five years. The facility appears to be in compliance with applicable NESHAP 5(D) requirements.

FGRULE285(2)(mm)

This flexible group includes any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278, 278a and 285(2)(mm). This rule requires the facility to report venting of natural gas as follows:

- Notify the AQD prior to scheduled venting if amount is greater than 1MMcf due to Maintenance or relocation of transmission and distribution systems.
- Notify the pollution emergency alert system within 24 hours per emergency event if amount is greater than 1MMcf.

This Flexible Group was added during the most recent ROP Renewal. Mr. Stermer was aware of these reporting requirements and it is unlikely that this location would ever vent over 1MMcf of natural gas. However, it would be logged and the AQD would be notified if it did. Mr. Stermer was not aware of any venting that has ever come close to reaching 1MMCF.

B) Miscellaneous Equipment

The facility's emergency diesel fueled generator (EUWFEMGENERATOR1) has been evaluated in the past and determined to be disconnected and rendered inoperable. No changes have been made to the condition or operational status of this generator.

C) MAERS

Emissions data for 2019 was submitted to MAERS on time and complete. The AQD reviewed this submission on May 6, 2020. Supporting documentation was added for use of the EPA Emission factor. No other changes were made to the database. A copy of Winfield's 2019 MAERS report is attached and summarized below.

Pollutant	Amount (tons)
CO	2.15
NOx	27.68
PM	0.07
SO2	0.004
VOC	0.80

Conclusion

Based on observations made during this inspection and a records review, Winfield appears to be in compliance with applicable rules and regulations including the requirements established in ROP MI-ROP-N5578-2020.

Attachments

Monthly Operating Hours and Fuel Usage
2019 MAERS Report

NAME 

DATE 11/2/2020

SUPERVISOR 