DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N557866152

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: Ben Samuelkutty , Analyst		**ACTIVITY DATE:** 01/19/2023
STAFF: Chris Robinson	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: FY'23 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:		

ANR's Winfield Compressor Station (Winfield, SRN N5578), located at 21453 Tamarack Road in Howard City, Montcalm County, Michigan was inspected on January 19, 2023, by Michigan's Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff Chris Robinson (CR). The purpose of this inspection was to determine Winfield's compliance status with respect to applicable air quality rules and regulations including Renewable Operating Permit (ROP) MI-ROP-N5578-2020.

Inspections at ANR's Goodwell and Winfield stations were conducted concurrently. CR met with Ben Samuelkutty, and operators and maintenance staff onsite at the Goodwell facility first and discussed both stations which included the ROP, current status/issues, and any future changes. A walk through of the Winfield station was conducted after completion of Goodwell's inspection. Observations were discussed and records were requested, which have been provided. ANR staff indicated that there have been no equipment modifications or additions since the last inspection conducted on October 27, 2020, no issues, and no future changes. However, Winfield's decommissioning date has been pushed back.

During this inspection weather conditions were light rain, approximately 39^{o}F with southeast winds at 9mph (www.weatherunderground.com). No visible emissions or significant odors were observed at any time. Unit 1 was operated during the inspection. Unit 2 is in operational condition but offline while unit 3 is still not operational. No opacity or visible emissions were observed.

A) 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 and consists of a compressor station and 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 any moisture accumulated in the gas stream while being stored in 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 units at this facility includes the following:

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

B) Regulatory Evaluation

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 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. Since Winfield is a major source of HAPs 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.

C) 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. Records are maintained for 5 years, however Mr. Samuelkutty noted that all records were going electronic. CR informed Mr. Samuelkutty that having electronic records is fine although they must be readily available upon request from the inspector and available for review during the inspection.

1) ROP-MI-N5578-2020

Source-wide Conditions: Asbestos NESHAP

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. Since the current plan is to decommission this station CR briefly discussed the NESHAP Asbestos requirement.

FGWFREC

The engines are monitored and operated from the control room at the ANR Woolfolk Compressor Station. 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.

Year	Month	EUWF001		EUWF002		EUWF003	
		Operating Hours	Fuel Usage (MMSCF)	Operating Hours	Fuel Usage (MMSCF)	Operating Hours	Fuel Usage (MMSCF)
2022	Jan	108.42	683.34	619.67	4,635.84	0.00	0.00
	Feb	221.25	1,847.75	389.33	3,223.24	0.00	0.00
	March	232.33	1,600.54	366.75	2,781.82	0.00	0.00
	July	0.02	0.00	0.00	0.00	0.00	0.00
	Dec	23.15	152.04	344.32	2,324.75	0.00	0.00

FGMACTDDDDD

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(2)(b)(i) which is used for both heating the fuel for the engines and water for the station. Based on the boiler's ratings, Winfield is 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.

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. Although the facility conducts boiler inspections and tune-ups annually the five (5) year tune up required by the NESHAP has not been provided to the AQD, however it is not due until 2024. If TransCanada wishes to use one of the existing annual tune-ups to satisfy this requirement it must be submitted properly to both the EPA and AQD.

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.

A venting log is attached. There were two (2) compressor "blow-down" events in December 2022, due to engine start up. One event vented 27.98 MCF of natural gas while the other vented 16.35 MCF of natural gas. Neither were required to be reported to EGLE.

2) Rule 201 Permitting Exemptions
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.

3) MAERS
Emissions data for 2021 was submitted to MAERS on time and complete. The AQD reviewed this submission on May 6, 2022. With facility approval supporting documentation was added for use of the EPA Emission factor. No other changes were made to the database. A summary of the data submitted is below.

Pollutant	Amount (tons)
CO	2.68
NOx	34.49
PM	0.08
SO2	0.005
VOC	1.00

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
Venting Log

NAME _____ DATE 2/2/2023 SUPERVISOR _____