

November 22, 2021

Mr. Chris Robinson
Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division
Grand Rapids District Office
350 Ottawa Avenue NW, Unit 10
Grand Rapids, MI 49503-2316



Re: ANR Pipeline Company – Woolfolk Compressor Station (SRN: B7220)

ROP No: MI-ROP-B7220-2017a

Notice of Violation

Dear Mr. Robinson,

A Violation Notice dated November 9, 2021 (attached) was received by ANR Pipeline Company (ANR) regarding the Woolfolk Compressor Station on November 10, 2021. The Violation Notice listed "Failure to conduct 2021 NOx performance testing for Engine 6" under Rule 818(4)(ii)(A). Rule 818(4)(ii) specifies monitoring requirements to "perform monitoring sufficient to yield reliable data for each ozone control period that is representative of a source's compliance with the projected NOx emission rate in sub rule (3)(a) of this rule or the emission rate limit specified in sub rule (3)(b) of this rule. The monitoring may include 1 of the following:(A) performance tests".

The NOx performance test for all nine (9) units at Woolfolk affected by Rule 818 was initially scheduled internally for May 2021 (the first month of the ozone control period) as part of our ongoing efforts to reduce the impact of mechanical failures impacting the ozone control period testing requirement. However, as all units were undergoing catalyst upgrades, the NOx testing was re-scheduled for July to coincide with the required formaldehyde testing. A notification and test plan were submitted to EGLE on June 17, 2021, as required at least 30 days prior to testing. NOx and formaldehyde testing were successfully completed on July 18, 2021, before the end of the ozone control period, and in compliance with permit emission limits for all engines tested. Test results were submitted to EGLE AQD on September 17, 2021, as required within 60 days following completion of the testing. The performance test was unable to be conducted on EUWL006 (Engine 6) because this engine was mechanically inoperable.

During the 2021 ozone control period, Engine 6 was only operational from May 1 – 8. Prior to and in preparation for the emissions test, ANR began to balance the engine to verify that the unit was ready for testing. Engine 6 could not make it to 90% torque without shutting down due to excessive crank case pressure. After analysis and an extensive internal investigation, it was discovered that Engine 6 had several bad liners and piston rings that required a complete top end overhaul. The engine could not be operated without repairs.

Due to delays with the required parts and components required for the overhaul, Engine 6 was unable to be repaired prior to September 30, 2021. Since the engine could not physically run, performance testing could not be conducted. Engine 6 is still currently being repaired and is expected to be operational around December 17, 2021. ANR proposes to conduct the required performance testing during the next ozone control period commencing on May 1, 2022 and ending on September 30, 2022. As required by R 336.1818(4)(a)(i) and R



336.1818(4)(c), a test plan will be submitted to the department not less than 30 days before the scheduled test date, and 2 copies of the test results will be submitted within 60 days of completion of the testing.

ANR strives to meet all permitting and compliance obligations. To that end, ANR proposes to prepare and submit a Performance Monitoring Plan (PMP) to EGLE AQD for approval with the following:

- 1. ANR will continue to conduct annual performance testing for all affected engines that operate in the ozone control period to ensure compliance with the NOx emission rate limit.
- 2. While considering unit outages and scheduled maintenance, ANR will continue to schedule annual NOx testing as early as practicable in the ozone control period to minimize the risk of missing NOx performance testing due to engine mechanical failures.
- 3. In the event of a mechanical failure that prevents NOx performance testing of a particular engine prior to the end of the ozone compliance period, ANR may use a 5-year average of the previous NOx performance tests to demonstrate compliance with Rule 818(4)(ii)(A) for the affected engine, provided <u>all</u> of the following conditions are met:
 - i. ANR notifies EGLE AQD within 30 days if an engine cannot to be tested during an ozone control period due to a mechanical failure:
 - ii. ANR demonstrates that the affected engine operated for less than or equal to 5% of the total ozone control period (3,672 hours) based on runtime hours; and
 - iii. ANR commits to conducting a performance test on the engine during the next ozone control period.

If EGLE finds these conditions amenable, ANR will prepare and a submit a detailed PMP for immediate approval.

If you have any questions, please feel free to contact Chris McFarlane at chris_mcfarlane@tcenergy.com or (832) 320-5490.

Sincerely,

Keith R. Mossman

Director - Great Lakes Region

TC Energy

Attachment: Violation Notice - ANR Woolfolk

Cc: Ms. Jenine Camilleri

Michigan Department of Environment, Great Lakes and Energy

Air Quality Division - Enforcement Unit

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Houston Air Files, TC Energy

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