App. No. 202400279

TC Energy
700 Louisiana
Houston Texas

October 21, 2024

Shamim Ahammod
Senior Environmental Engineer & ROP Writer (ROP Central Unit)
Air Quality Division, Warren District Office
Michigan Department of Environment, Great Lakes, and Energy
27700 Donald Court
Warren, MI 48092-2793

RE: ANR Pipeline Company
ROP Minor Amendment Application
Incorporate Permit to Install into Renewable Operating Permit
ANR Storage Company (Permit No. MI-ROP-N7198-2014a) (PTI 81-24)

Dear Mr. Ahammod,

ANR Pipeline Company (ANR) owns and operates the ANR Storage Company located in Kalkaska County, MI. ANR was issued a Permit to Install (PTI) on July 11, 2024 to modify the ANR Storage Company. The project was to increase the pump rate for the glycol dehydrator from 12 to 16 gallons per minute. The reboiler was replaced as part of the project. The previous reboiler was 3.0 MMBtu/hr and was replaced by a unit that is 2.0 MMBtu/hr.

PTI 81-24 was issued July 11, 2024 to incorporate the changes. A renewal application was submitted on December 21, 2018. The enclosed request is to incorporate the changes from PTI81-24 into the Renewable Operating Permit (ROP) MI-ROP-N7198-2014a.

This application package includes all required forms and attachments. Should you have any questions or need additional information, please feel free to contact me at (832) 320-5490 or via email at chris_mcfarlane@tcenergy.com

Sincerely,

US Environment - Air
TC Energy

Enclosure – ROP Administrative Amendment Application

App. No. 202400279

EGLE

Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division

RENEWABLE OPERATING PERMIT
M-001: RULE 215 CHANGE NOTIFICATION
RULE 216 AMENDMENT/MODIFICATION APPLICATION

This information is required by Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment.

1. SRN N7198	2. ROP Number MI-ROP-N7198-2014a	3. County Kalkaska
4. Stationary Source Name	ANR Storage Company	
5. Location Address	10000 Pflum Road	6. City Mancelona

7. Submittal Type - *The submittal must meet the criteria for the box checked below. Check only one box. Attach a mark-up of the affected ROP pages for applications for Rule 216 changes.*

- ☐ **Rule 215(1) Notification of change**. *Complete Items 8 – 10 and 14*
- ☐ **Rule 215(2) Notification of change**. *Complete Items 8 – 10 and 14*
- ☐ **Rule 215(3) Notification of change**. *Complete Items 8 – 11 and 14*
- ☐ **Rule 215(5) Notification of change**. *Complete Items 8 – 10 and 14*
- ☐ **Rule 216(1)(a)(i)-(iv) Administrative Amendment**. *Complete Items 8 – 10 and 14*
- ☐ **Rule 216(1)(a)(v) Administrative Amendment**. *Complete Items 8 – 14. Results of testing, monitoring & recordkeeping must be submitted. See detailed instructions.*
- ☒ **Rule 216(2) Minor Modification**. *Complete Items 8 – 12 and 14*
- ☐ **Rule 216(3) Significant Modification**. *Complete Items 8 – 12 and 14, and provide any additional information needed on ROP application forms. See detailed instructions.*
- ☐ **Rule 216(4) State-Only Modification**. *Complete Items 8 – 12 and 14*

8. Effective date of the change. (MM/DD/YYYY) *See detailed instructions.* 7/11/2024	9. Change in emissions? ☒ Yes ☐ No

10. Description of Change - *Describe any changes or additions to the ROP, including any changes in emissions and/or pollutants that will occur. If additional space is needed, complete an Additional Information form (AI-001).*

The project was to increase the pump rate for the glycol dehydrator from 12 to 16 gallons per minute. The reboiler was replaced as part of the project. The previous reboiler was 3.0 MMBtu/hr and was replaced by a unit that is 2.0 MMBtu/hr.

11. New Source Review Permit(s) to Install (PTI) associated with this application? ☒ Yes ☐ No

If Yes, enter the PTI Number(s) 81-24 ____ - ____ - ____ - ____ - ____

12. Compliance Status - *A narrative compliance plan, including a schedule for compliance, must be submitted using an AI-001 if any of the following are checked No.*

a. Is the change identified above in compliance with the associated applicable requirement(s)? ☒ Yes ☐ No

b. Will the change identified above continue to be in compliance with the associated applicable requirement(s)? ☒ Yes ☐ No

c. If the change includes a future applicable requirement(s), will timely compliance be achieved? ☒ Yes ☐ No

13. Operator's Additional Information ID - *Create an Additional Information (AI) ID for the associated AI-001 form used to provide supplemental information.* **AI**

14. Contact Name	Telephone No.	E-mail Address
Chris McFarlane	832-320-5490	Chris_mcfarlane@tcenergy.com

15. This submittal also updates the ROP renewal application submitted on 03/13/2023 ☒ Yes ☐ N/A
(If yes, a mark-up of the affected pages of the ROP must be attached.)

NOTE: A CERTIFICATION FORM (C-001) SIGNED BY A RESPONSIBLE OFFICIAL MUST ACCOMPANY ALL SUBMITTALS

App. No. 202400279

EGLE Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION
C-001: CERTIFICATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to provide this information may result in civil and/or criminal penalties. Please type or print clearly.

This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.

Form Type **C-001**	SRN N7198

Stationary Source Name ANR Storage Company	
City Mancelona	County Kalkaska

SUBMITTAL CERTIFICATION INFORMATION

1. Type of Submittal *Check only one box.*

☐ Initial Application (Rule 210) ☒ Notification / Administrative Amendment / Modification (Rules 215/216)

☐ Renewal (Rule 210) ☐ Other, describe on AI-001

2. If this ROP has more than one Section, list the Section(s) that this Certification applies to _____

3. Submittal Media ☒ E-mail ☐ FTP ☐ Disk ☐ Paper

4. Operator's Additional Information ID - Create an Additional Information (AI) ID that is used to provide supplemental information on AI-001 regarding a submittal.

AI

CONTACT INFORMATION

Contact Name Chris McFarlane	Title Manager, Air Emissions and Reporting
Phone number 832-320-5490	E-mail address Chris_mcfarlane@tcenergy.com

This form must be signed and dated by a Responsible Official.

Responsible Official Name Eric Parrett			Title Area Manager, Blue Lake Area - Great Lakes Region	
Mailing address 8616 ANR Storage Road NE				
City Mancelona	State MI	ZIP Code 48659	County Kalkaska	Country US

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate and complete.

Eric Parrett — Signature of Responsible Official

10-15-24 — Date

EU CS12GLYDHY
EMISSION UNIT CONDITIONS

DESCRIPTION

The glycol dehydration system can operate in two modes. Glycol injection occurs when a process called low temperature separation is used to remove liquids from the gas stream. Di-ethylene glycol (DEG) is injected into the gas stream and mixes with the liquids to prevent freezing during low temperature separation. Glycol absorption is used when low temperature separation does not adequately remove the liquids from the gas stream. DEG is circulated through a contactor tower countercurrent to the gas stream. The DEG absorbs the liquid from the gas stream during the glycol absorption process. During both modes of operation, the glycol enriched gas stream liquid is regenerated in a reboiler for continual use.

POLLUTION CONTROL EQUIPMENT: Condenser and thermal oxidizer.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Benzene	Less than 1 tpy[2]	12 month rolling time period as determined at the end of each calendar month.	EU CS12GLYDHY	V.1, VI.1, VI.3, VI.4	**R 336.1702(a), R 336.1205(1)**
2. VOC	~~86~~ lbs/day[2] 104.8		EU CS12GLYDHY	V.1, VI.2, VI.3, VI.4	**R 336.1702(a)**
3. VOC	~~15.7~~ tpy[2] 14.6	12 month rolling time period as determined at the end of each calendar month.	EU CS12GLYDHY	V.1, VI.1, VI.3, VI.4,	**R 336.1702(a)**

II. MATERIAL LIMIT(S)

NA

Add condition to section III: The glycol dehydration unit shall be equipped with any combination of glycol pump(s) that have a combined capacity no greater than 16 gpm. **(R 336.1205(1), R 336.1702(a), R 336.1901)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not use any stripping gas in EU CS12GLYDHY.[2] **(R 336.1702(a), R 336.1901)**
2. The permittee shall not operate EU CS12GLYDHY unless the glycol flash tank is installed and operating properly. A properly operating flash tank will volatilize organic compounds out of the rich glycol stream and route the VOCs to the glycol regenerator re-boiler burner or thermal oxidizer for destruction.[2] **(R 336.1702(a))**
3. Except as provided in the condition below, the permittee shall not operate EU CS12GLYDHY unless the thermal oxidizer is installed and operating properly. Proper operation includes but is not limited to maintaining a minimum operating temperature of 1400°F, a minimum residence time of 0.5 seconds, and a VOC destruction efficiency of at least 95 percent by weight.[2] **(R 336.1702(a))**
4. If the thermal oxidizer malfunctions, the permittee may operate EU CS12GLYDHY provided the condenser is installed and operating properly. Proper operation includes maintaining a maximum condenser exhaust gas temperature of 120°F.[2] **(R 336.1702(a))**

5. Sweet natural gas shall be the only fuel supplied to and fired in EU CS12GLYDHY. Sweet gas is defined as any gas containing no more than 1 grain of hydrogen sulfide or 10 grains of total sulfur per 100 standard cubic feet. The permittee may also incinerate emissions from the glycol-flash tank in the glycol reboiler burner[2] **(R 336.1119(i) and (dd))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. EU CS12GLYDHY shall be equipped with a thermal oxidizer. **(R 336.1702(a))**
2. EU CS12GLYDHY shall be equipped with a condenser. **(R 336.1702(a))**
3. EU CS12GLYDHY shall be equipped with a flash tank. **(R 336.1702(a))**
4. EU CS12GLYDHY thermal oxidizer and condenser shall each be equipped with working temperature monitors to continuously monitor thermal oxidizer and condenser operating temperatures.[2] **(R 336.1702(a))**
5. EU CS12GLYDHY thermal oxidizer and condenser temperature monitor systems shall each be designed and equipped with alarm systems that will alarm if the operating temperature is less than 1400°F for the thermal oxidizer and greater than 120°F for the condenser. **(R 336.1911, R 336.1213(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Once every five years the permittee shall analyze the pre-dehydration natural gas processed in EU CS12GLYDHY to determine its non-methane VOC and Benzene content and composition using a method or methods standard in the natural gas industry, subject to approval by the AQD.[2] **(R 336.1205)**
2. Once every five years the permittee shall analyze the sweet natural gas fuel supplied to and fired in EU CS12GLYDHY for grains of hydrogen sulfide or grains of total sulfur per 100 standard cubic feet.[2] **(R 336.1119(i) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall calculate and record, in a satisfactory manner, monthly and 12–month rolling time period Benzene and VOC emission calculation records in tons from EU CS12GLYDHY. The emissions calculations shall be available to the AQD upon request by 15th of the following month.[2] **(R 336.1205(1), R 336.702(a), R 336.1901)**
2. The permittee shall calculate and record, in a satisfactory manner, VOC emissions in pounds per calendar day from EU CS12GLYDHY. The emissions calculations shall be available to the AQD upon request by the 15th of the following month.[2] **(R 336.1702(a), R336.1901)**
3. The permittee may calculate and record the Benzene and VOC emissions from EU CS12GLYDHY by using the GRI-GLYCalc (tm) computer model, version 3.0 or later or other method acceptable to the AQD District Supervisor. Inputs to the model shall be representative of actual operating conditions of EU CS12GLYDHY.[2] **(R 336.1213(3) R 336.1702(a), R 336.1901))**
4. The permittee shall recalculate the Benzene and VOC emission rates in Condition 3 above each time the natural gas is analyzed to determine its Benzene and VOC content. **(R 336.1213(3)(a))**
5. When EU CS12GLYDHY is operating, the permittee shall continuously monitor, and record daily, the temperature of the control device in use (condenser or thermal oxidizer).[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**
6. The permittee shall monitor and record the alarm events actuated because the temperature limit of the condenser or thermal oxidizer was not met. The permittee shall record the action taken in response to an alarm event. **(R 336.1702(a))**
7. The permittee shall maintain in a manner acceptable to the AQD calculations showing the VOC destruction efficiency of the thermal oxidizer is at least 95 percent by weight. **(R 336.1213(3))**
8. The permittee shall monitor and record the amount of natural gas processed through EU CS12GLYDHY for each calendar day EU CS12GLYDHY operates.[2] **(R336.1205(1), R336.1702(a), R336.1901)**

9. Each calendar day EU CS12GLYDHY operates, the permittee shall monitor and record the total hours of operation of EU CS12GLYDHY.[2] **(R336.1205(1), R336.1702(a), R336.1901)**

10. The permittee shall monitor and record the number of hours EU ~~BLGLYDHY~~ operated with the condenser only. **(R 336.1213(3))**

CS12GLYDHY

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit a complete analysis plan (for the sweet natural gas fuel) to the AQD District Supervisor for approval at least 30 days prior to the anticipated analysis date.[2] **(R 336.1205, R 336.1119(i) and (dd))**

5. The permittee shall submit a complete report of the analysis results to the AQD District Supervisor, within 60 days following the last date of the analysis.[2] **(R 336.1205, R 336.1119(i) and (dd))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-010A (Thermal Oxidizer)	NA 29.1	~~17~~[1] 30	**R 336.1901**
2. SV-010B (Condenser)	~~3~~[1] 2	~~17~~[1] 25	**R 336.1901**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).