App #202100068 & App #202100069

TC Energy

ANR Pipeline Company

ANR Pipeline Company
N4956 Oakcrest Dr
Bonduel WI, 54107

March 23, 2021

Michigan Department of Environment, Great Lakes, and Energy – Air Quality Division
Cadillac District – Cadillac Office
(Northwest Lower Peninsula)
120 W Chapin Street
Cadillac, MI 49601-2158

RECEIVED
AQD
MAR 26 2021
MACES_____ MAERS_____
FILE_____

Re: Rule 216(2) Minor Amendment
ANR Pipeline Company – Cold Springs/Blue Lake Compressor Station
Mancelona, MI
State Registration Number (SRN): B7198

Dear Ms. Caryn Owens,

Enclosed is the R 336.1216(2) (Rule 2016(2)) Minor Amendment for ANR Pipeline Company – Cold Springs/Blue Lake Compressor Station. The ANR Pipeline Company – Cold Springs/Blue Lake Compressor Station currently operates under an existing Renewable Operating Permit, MI-ROP- 7198-2014a, issued by the Michigan Department of Environmental Quality (DEQ) on July 23, 2014 and revised on November 21, 2014. The permit expired on July 23, 2019. In compliance with R 336.1210(9), the facility submitted a timely and complete application for renewal of the ROP on December 21, 2018

This Rule 216(2) minor permit modification is to replace the two (2) existing process heaters, EU BLHEATER-A and EU BLHEATER-B both rated at 16 MMBtu/hr with two (2) new process heaters, EU BLHEATER-C and EU BLHEATER-D, each rated at 25.28 MMBtu/hr at the Blue Lake Gas Storage Company. The permit modification will also include replacement of two (2) existing process heaters, EU CS12HEATER-A and EU CS12HEATER-B both rated at 7.5 MMBtu/hr with two (2) new process heaters, EU CS12HEATER-C and EU CS12HEATER-D, each rated at 25.33 MMBtu/hr at the Cold Springs 12 Compressor Station.

The new process heaters are exempt from the requirement to obtain a Permit-to-Install (PTI) under R 336.1278 and R 336.1282(2)(b)(i), which exempts fuel-burning equipment used in oil and gas processing with heat input less than 50 MMBtu/hr from obtaining a PTI.

The Rule 216(2) minor modification is required and provides a description of the change including:
• The date of the change – The installation of the heater EU BLHEATER-C, EU CS12HEATER-C and EU CS12HEATER-D are scheduled for September 2021. Heater EU BLHEATER-D is expected to be installed in 2022.
• Any change in emissions – Please see emission calculations in Attachment B.
• Any permit term or condition that is no longer applicable as a result of the change – Flexible Group Conditions, FG BLHEATERS in the current permit will need to be updated for the

proposed heaters. The existing heaters are existing sources under 40 CFR Part 63 Subpart DDDDD. However, the proposed heaters will be new sources under 40 CFR Part 63 Subpart DDDDD. A markup of the current ROP is included with this minor modification application in Attachment C.

BLHEATER-A and EU BLHEATER-B currently operate under flexible group FG BLHEATERS that requires stack testing. The stack testing was a result of past compliance items. The proposed heaters will not require stack testing and ANR is requesting to remove these conditions.

Flexible Group Conditions, FG CS12DDDDD in the current permit will need to be updated for the proposed heaters. The existing heaters are existing sources under 40 CFR Part 63 Subpart DDDDD between 5 and 10 MMBtu/hr. However, the proposed heaters will be new sources under 40 CFR Part 63 Subpart DDDDD greater than 10 MMBtu/hr. A markup of the current ROP is included with this minor modification application in Attachment C.

In addition, it was determined that the external combustion emission factors for VOC and SO_2 were switched in the previous version of the total facility emission calculation spreadsheet. The emission units that were affected by this change are the following: EUBLHEATERA and B, EUBLBOILER, EUCS12BOILER, EUCS12HEATERA and B, EUCS1SHEATER, EUCS1HEATER, EUCS1BOILER. The emission factors have been updated in the enclosed spreadsheet.

The required application forms along with a certification from the responsible official stating the project meets the criteria for a minor modification and the application is true, accurate and complete are enclosed.

If you have any questions or comments concerning this request, please contact me at (715) 701-3659 or via email at chris_waltman@tcenergy.com.

Sincerely,

Chris Waltman
TC Energy
Analyst – US Environmental Permitting
Office: (715) 758-3341
Cell: (715) 701-3659
chris_waltman@tcenergy.com

Attachment A

Application Forms

App #202100068

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

RENEWABLE OPERATING PERMIT APPLICATION
C-001: CERTIFICATION

MACES_____ MAERS_____
FILE_____

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 B7198

Stationary Source Name ANR Storage Company – Blue Lake Gas 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 2

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 001

CONTACT INFORMATION

Contact Name Chris Waltman	Title Analyst - US Environmental Permitting
Phone number 715-701-3659	E-mail address chris_waltman@TCEnergy.com

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

Responsible Official Name Keith R. Mossman			Title Director US Gas Operation Great Lakes Region	
Mailing address 5250 Corporate Dr				
City Troy	State MI	ZIP Code Michigan	County Oakland	Country USA

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.

Keith R. Mossman — Signature of Responsible Official

3/23/2021 — Date

EQP 5773 (updated 4-2019)

App #202100068

RECEIVED
AQD
MAR 26 2021

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

MACES_____ MAERS_____
FILE_____

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 B7198	2. ROP Number MI-ROP-B7198-2014a	3. County Kalkaska
4. Stationary Source Name	ANR Storage Company – Blue Lake Gas 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.* ____/____/____

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).*

See AI-001 for details.

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

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

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 001**

14. Contact Name	Telephone No.	E-mail Address
Chris Waltman	(715) 701-3659	chris_waltman@TCEnergy.com

15. This submittal also updates the ROP renewal application submitted on 12/21/2018 ☒ 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 #202100068 RECEIVED AQD

MAR 26 2021

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

EGLE

RENEWABLE OPERATING PERMIT APPLICATION

AI-001: ADDITIONAL INFORMATION

MACES_____ MAERS_____

FILE_____

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 obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B7198	Section Number (if applicable): 2

1. Additional Information ID
AI-001

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Modification Summary:

The ANR Pipeline Company – Blue Lake Compressor Station currently operates under an existing Renewable Operating Permit, MI-ROP- 7198-2014a, issued by the Michigan Department of Environmental Quality (DEQ) on July 23, 2014 and revised on November 21, 2014. The permit expired on July 23, 2019. In compliance with R 336.1210(9), the facility submitted a timely and complete application for renewal of the ROP on December 21, 2018.

This Rule 216(2) minor permit modification is to replace the two (2) existing process heaters, EU BLHEATER-A and EU BLHEATER-B both rated at 16 MMBtu/hr from the ROP with two (2) new process heaters, EU BLHEATER-C and EU BLHEATER-D, each rated at 25.28 MMBtu/hr.

PTI Requirements:
The new process heaters, EU BLHEATER-C and EU BLHEATER-D, are exempt from the requirement to obtain a Permit-to-Install (PTI) under R 336.1278 and R 336.1282(2)(b)(i), which exempts fuel-burning equipment used in oil and gas processing with heat input less than 50 MMBtu/hr from obtaining a PTI.

Rule 216(2) Requirements:
The Rule 216(2) minor modification is required and provides a description of the change including:

- A description of the change – The facility is proposing to replace existing process heaters, EU BLHEATER-A rated at 16 MMBtu/hr and EU BLHEATER-B rated at 16 MMBtu/hr with two (2) new process heaters, EU BLHEATER-C and EU BLHEATER-D, each rated at 25.28 MMBtu/hr.
- The date of the change – The installation of the heater EU BLHEATER-C is scheduled for September 2021. Heater EU BLHEATER-D is expected to be installed in 2022.
- Any change in emissions – Please see emission calculations in Attachment B.
- Any permit term or condition that is no longer applicable as a result of the change – Flexible Group Conditions, FG BLHEATERS in the current permit will need to be updated for the proposed heaters. The existing heaters are existing sources under 40 CFR Part 63 Subpart DDDDD. However, the proposed heaters will be new sources under 40 CFR Part 63 Subpart DDDDD. A markup of the current ROP is included with this minor modification application in Attachment C.

BLHEATER-A and EU BLHEATER-B currently operate under flexible group FG BLHEATERS that requires stack testing. The stack testing was a result of past compliance items. The proposed heaters will not require stack testing and ANR is requesting to remove these conditions.

Changes in the quantity or quality of emissions and/or pollutants:
The proposed project will result in an increase in total emissions at the facility, as outlined in the attached emission calculations. The change in emissions will not exceed the major modification thresholds for the facility.

The facility is not subject to the provisions of Title IV, Acid Rain.

App #202100069

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 B7198

Stationary Source Name ANR Storage Company – Cold Springs 12 Compressor Station	
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 1

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 002

CONTACT INFORMATION

Contact Name Chris Waltman	Title Analyst - US Environmental Permitting
Phone number 715-701-3659	E-mail address chris_waltman@TCEnergy.com

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

Responsible Official Name Keith R. Mossman			Title Director US Gas Operation Great Lakes Region	
Mailing address 5250 Corporate Dr				
City Troy	State MI	ZIP Code Michigan	County Oakland	Country USA

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.

Keith R. Mossman — 3/23/2021

Signature of Responsible Official — Date

App #202100069

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 B7198	2. ROP Number MI-ROP-B7198-2014a	3. County Kalkaska
4. Stationary Source Name	ANR Storage Company – Cold Springs 12 Compressor Station	
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.* _____/_____/_____

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).*

See AI-002 for details.

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

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

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 002**

14. Contact Name	Telephone No.	E-mail Address
Chris Waltman	(715) 701-3659	chris_waltman@TCEnergy.com

15. This submittal also updates the ROP renewal application submitted on 12/21/2018 ☒ 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 #202100069

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

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

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 obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: B7198	Section Number (if applicable): 1

1. Additional Information ID
AI-002

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Modification Summary:

The ANR Pipeline Company – Cold Springs 12 Compressor Station currently operates under an existing Renewable Operating Permit, MI-ROP- 7198-2014a, issued by the Michigan Department of Environmental Quality (DEQ) on July 23, 2014 and revised on November 21, 2014. The permit expired on July 23, 2019. In compliance with R 336.1210(9), the facility submitted a timely and complete application for renewal of the ROP on December 21, 2018.

This Rule 216(2) minor permit modification is to replace the two (2) existing process heaters, EU CS12HEATER-A and EU CS12HEATER-B each rated at 7.5 MMBtu/hr from the ROP with two (2) new process heaters, EU CS12HEATER-C and EU CS12HEATER-D, each rated at 25.33 MMBtu/hr.

PTI Requirements:
The new process heaters, EU CS12HEATER-C and EU CS12HEATER-D, are exempt from the requirement to obtain a Permit-to-Install (PTI) under R 336.1278 and R 336.1282(2)(b)(i), which exempts fuel-burning equipment used in oil and gas processing with heat input less than 50 MMBtu/hr from obtaining a PTI.

Rule 216(2) Requirements:
The Rule 216(2) minor modification is required and provides a description of the change including:

• A description of the change – The facility is proposing to replace the existing process heaters, EU CS12HEATER-A and EU CS12HEATER-B each rated at 7.5 MMBtu/hr with two (2) new process heaters, EU CS12HEATER-C and EU CS12HEATER-D, each rated at 25.33 MMBtu/hr.
• The date of the change – The installation of the heaters is scheduled for September 2021.
• Any change in emissions – Please see emission calculations in Attachment B.
• Any permit term or condition that is no longer applicable as a result of the change – Flexible Group Conditions, FG CS12DDDDD in the current permit will need to be updated for the proposed heaters. The existing heaters are existing sources under 40 CFR Part 63 Subpart DDDDD between 5 and 10 MMBtu/hr. However, the proposed heaters will be new sources under 40 CFR Part 63 Subpart DDDDD greater than 10 MMBtu/hr. A markup of the current ROP is included with this minor modification application in Attachment C.

Changes in the quantity or quality of emissions and/or pollutants:
The proposed project will result in an increase in total emissions at the facility, as outlined in the attached emission calculations. The change in emissions will not exceed the major modification thresholds for the facility.

The facility is not subject to the provisions of Title IV, Acid Rain.

Attachment B

Emissions Calculations

Table 2-1 Equipment List - Significant Activities

Emission Point ID	Stack ID	Source	Manufacturer	Model/Type	Rated Capacity	Heat Input (MMBTU/hr)
Blue Lake Compressor Station						
EUBLGEN-A	SV104	Blue Lake Generator Engine A	Caterpillar	3516	1,125	10.69
EUBLGEN-B	SV105	Blue Lake Generator Engine B	Caterpillar	3516	1,125	10.69
EUBLGEN-C	SV106	Blue Lake Generator Engine C	Caterpillar	3516	1,125	10.69
EUBLCMPR-A	SV101	Blue Lake Compressor Engine A	Ingersoll Rand	TCVD 12	6,000	48.18
EUBLCMPR-B	SV102	Blue Lake Compressor Engine B	Ingersoll Rand	TCVD 12	6,000	48.18
EUBLCMPR-C	SV103	Blue Lake Compressor Engine C	Ingersoll Rand	TCVD 12	6,000	48.18
EUBLHEATER-C	SV112	Blue Lake Withdrawal Gas Heater-C	GasTech	-	-	25.28
EUBLHEATER-D	SV113	Blue Lake Withdrawal Gas Heater-D	GasTech	-	-	25.28
EUBLGLYDHY	SV110	Blue Lake Glycol Dehydrator/Reboiler	Rama	-	-	3.00
EUBLGLYDHY	SV111TI (Thermal Oxidizer)	Blue Lake Dehydration System Thermal Oxidizer	Tornado	-	-	1.00
EUBLGLYDHY	SV111C (Condenser)	Blue Lake Dehydration System Condenser	-	-	-	N/A
EUBLBOILER	SVBLBOILER	Blue Lake Boiler	Cleaver Brooks	CB-700-60	-	4.18
Cold Springs 12 Compressor Station						
EUCS12EMRGEN-B	SV005	Cold Springs 12 Generator Engine B	Waukesha	VHP5108G	580	4.64
EUCS12CMPR-A	SV001	Cold Springs 12 Compressor Engine A	Ingersoll-Rand	410-KVR-TE	3,750	31.76
EUCS12CMPR-B	SV002	Cold Springs 12 Compressor Engine B	Ingersoll-Rand	410-KVR-TE	3,750	31.76
EUCS12CMPR-C	SV003	Cold Springs 12 Compressor Engine C	Ingersoll-Rand	410-KVR-TE	3,750	31.76
EUCS12GLYDHY	SV009	Cold Springs 12 Glycol Dehydrator/Reboiler	-	--	--	3.00
EUCS12GLYDHY	SV010A	Cold Springs 12 Dehydration System Thermal Oxidizer	Rama	--	--	1.00
EUCS12GLYDHY	SV010B	Cold Springs 12 Dehydration System Condenser	Tornado	--	--	N/A
EUCS12BOILER	SVCSBOILER	Cold Springs 12 Boiler	Cleaver Brooks	CB-700-60	--	2.51
EUCS12HEATER-C	SVCSHTR-C	Cold Springs 12 Withdrawal Gas Heater-C	GasTech	-	--	25.33
EUCS12HEATER-D	SVCSHTR-D	Cold Springs 12 Withdrawal Gas Heater-D	GasTech	-	--	25.33
Cold Springs 1 Compressor Station						
EUCS1CNDTANKS	SV011C	Cold Springs 1 Liquid Stabilization Thermal Oxidizer	--	--	--	1.00
EUCS1CNDTANK1	SV011C	Cold Springs 1 Stabilized Condensate Tank A	--	--	16,800	--
EUCS1CNDTANK2	SV011C	Cold Springs 1 Stabilized Condensate Tank B	--	--	16,800	--
EUCS1CNDTANK3	SV011C	Cold Springs 1 Stabilized Condensate Tank C	--	--	16,800	--
EUCS1CNDTANK4	SV011C	Cold Springs 1 Stabilized Condensate Tank D	--	--	16,800	--
EUCS1LSHEATER	SVCS1SHTR	Cold Springs 1 Stabilizer Heater	--	--	--	5.00
EUCS1WDHEATER	SVCS1HTR	Cold Springs 1 Gas Heater	--	--	--	15.00
EUCS1BOILER	SVCS1BOILER	Cold Springs 1 Boiler	--	--	--	3.50
EUCS1GLYDHY	SVCS1REBOILER	Cold Springs 1 Dehy Reboiler	--	--	--	1.00
EUCS1GLYDHY	SV011B	Cold Springs 1 Glycol Dehydration System Condenser	N/A	--	--	N/A
EUCS1GLYDHY	SV011A	Cold Springs 1 Glycol Dehydration System Thermal Oxidizer	Tornado	--	--	0.5

Table 2-2 Equipment List - Insignificant Activities

Emission Point ID		Source Description	Rating/Capacity	Citation / Reason for classification as insignificant activity
Blue Lake Compressor Station				
DVBLT-3401	SVTK3401	Blue Lake Glycol Tank	16,800 gal	Exempt from Rule 201 under Rule 284(e)
DVBLT-3402	SVTK3402	Blue Lake Condensate/Brine Tank	16,800 gal	Exempt from Rule 201 under Rule 284(e)
DVBLT-3403	SVTK3403	Blue Lake Condensate/Brine Tank	16,800 gal	Exempt from Rule 201 under Rule 284(e)
DVBLT-3404	SVTK3404	Blue Lake Glycol Tank	16,800 gal	Exempt from Rule 201 under Rule 284(e)
DVBLT-3302	SVTK3302	Blue Lake Ethylene Glycol Tank	16,800 gal	Exempt from Rule 201 under Rule 284(i)
DVBLT-3303	SVTK3303	Blue Lake Ethylene Glycol Recycle	16,800 gal	Exempt from Rule 201 under Rule 284(i)
DVBLT-3306	SVTK3306	Blue Lake Waste Oil Tank	16,800 gal	Exempt from Rule 201 under Rule 284(c)
DVBLT-3701	SVTK3701	Blue Lake Coolant Tank	5,080 gal	Exempt from Rule 201 under Rule 284(i)
DVBLV-3702	SVTK3702	Blue Lake Coolant Recycle Tank	2,540 gal	Exempt from Rule 201 under Rule 284(i)
DVBLV-3703	SVTK3703	Blue Lake Lube Oil Recycle Tank	5,080 gal	Exempt from Rule 201 under Rule 284(c)
DVBLV-3705	SVTK3705	Blue Lake Engine Lube Oil Tank	5,080 gal	Exempt from Rule 201 under Rule 284(c)
DVBLV-3707	SVTK3707	Blue Lake HP cyl. Lube Oil Tank	2,540 gal	Exempt from Rule 201 under Rule 284(c)
DVBLV-3709	SVTK3709	Blue Lake Generator Lube Oil Tank	2,540 gal	Exempt from Rule 201 under Rule 284(c)
DVBLV-3307	SVTK3307	Blue Lake Propane Reciever Tank	4,610 gal	Exempt from Rule 201 under Rule 284(i)
DVBLV-4307	SVTK4307	Blue Lake Propane Reciever Tank	4,610 gal	Exempt from Rule 201 under Rule 284(i)
EUBLCLEANER	N/A	Blue Lake Cold Cleaner	-	Exempt from Rule 201 under Rule 281(h)
FGBLCOMP	N/A	Blue Lake Fugitive emissions from component leaks	-	Exempt from Rule 201 under Rule 290
Blowdowns	N/A	Blue Lake Emergency Shutdown	-	Exempt from Rule 201 under Rule 285(mm)
Cold Springs 12 Compressor Station				
DVCS41-1018	SV1018	Cold Springs 12 Ethylene Glycol Tank	5,500 gal	Exempt from Rule 201 under Rule 284(i)
DVCSGT-2000A	SV2000A	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	2,300 gal	Exempt from Rule 201 under Rule 284(i)
DVCSGT-2000B	SV2000B	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	2,900 gal	Exempt from Rule 201 under Rule 284(i)
DVCS42-1001A	SV1001A	Cold Springs 12 Brine Tank A	10,000 gal	Exempt from Rule 201 under Rule 284(e)
DVCS42-1001B	SV1001B	Cold Springs 12 Brine Tank B	10,000 gal	Exempt from Rule 201 under Rule 284(e)
DVCS-T21	DVCS-T21	Cold Springs 12 Condensate Tank	16,800 gal	Exempt from Rule 201 under Rule 284(e)
DVCS42-1002	SV1002	Cold Springs 12 Methanol Storage Tank	16,800 gal	Exempt from Rule 201 under Rule 284(i)
DVCS41-1019	SV1019	Cold Springs 12 Lube Oil Tank	5,500 gal	Exempt from Rule 201 under Rule 284(c)
DVCS41-1020	SV1020	Cold Springs 12 Lube Oil Tank	1,100 gal	Exempt from Rule 201 under Rule 284(c)
DVCS41-1021	SV1021	Cold Springs 12 Lube Oil Tank	1,400 gal	Exempt from Rule 201 under Rule 284(c)
DVCS42-1003	SV1003	Cold Springs 12 Waste Oil Tank	10,000 gal	Exempt from Rule 201 under Rule 284(c)
FGCSCOMP	N/A	Cold Springs 12 Fugitive emissions from component leaks	-	Exempt from Rule 201 under Rule 290
Blowdowns	N/A	Cold Springs 12 Emergency Shutdown	-	Exempt from Rule 201 under Rule 285(mm)
Cold Springs 1 Compressor Station				
EUCS1V6009A	EUCS1V6009A	LSP NGL Storage Vessel A	30,000 gal	Exempt from Rule 201 under Rule 284(b)
EUCS1V6009B	EUCS1V6009B	LSP NGL Storage Vessel B	30,000 gal	Exempt from Rule 201 under Rule 284(b)
EUCS1TL	EUCS1TL	LSP NGL Truck Loading	N/A	Exempt from Rule 201 under Rule 284(i)
EGCS1BRINETK1	SVCS1BRINETK1	Brine Condensate Tank 1	16,800 gal	Exempt from Rule 201 under Rule 284(e)
EGCS1BRINETK2	SVCS1BRINETK2	Brine Condensate Tank 2	16,800 gal	Exempt from Rule 201 under Rule 284(e)
EGCS1GLYTK1	SVGLYTANK1	Ethylene Glycol Tank 1	16,800 gal	Exempt from Rule 201 under Rule 284(i)
EGCS1GLYTK2	SVGLYTANK2	Ethylene Glycol Tank 2	16,800 gal	Exempt from Rule 201 under Rule 284(i)
EGCS1LUBEOILTK1	SVCS1LUBEOILTK1	Lube Oil Tank 1	3,000 gal	Exempt from Rule 201 under Rule 284(c)
EGCS1LUBEOILTK2	SVCS1LUBEOILTK2	Lube Oil Tank 2	3,000 gal	Exempt from Rule 201 under Rule 284(c)
EGCS1USEDLUBEOILTK	SVCS1USEDLUBEOILTK	Used Oil Tank	16,800 gal	Exempt from Rule 201 under Rule 284(c)
EUCS1LUBET5124	EUCS1LUBET5124	Compresser Cylinder Lube Oil Tank	300 gal	Exempt from Rule 201 under Rule 284(c)
EGCS1COOLANTTK	SVCS1COOLANTTK	Glycol/Water Tank	3,000 gal	Exempt from Rule 201 under Rule 284(i)
EUCS1PROPANE	EUCS1PROPANE	Propane Pressure Tank	1,500 gal	Exempt from Rule 201 under Rule 284(b)
EUCS1HTRH5804	EUCS1HTRH5804	Hot Water Heater	<0.1 MMBtu/hr	Exempt from Rule 201 under Rule 282(a)
EUCS1BRINET6008	EUCS1BRINET6008	LSP Brine Tank	8,460 gal	Exempt from Rule 201 under Rule 284(e)
FGCS1COMP	N/A	Cold Springs 1 Fugitive emissions from component leaks		Exempt from Rule 201 under Rule 290
Blowdowns	N/A	Cold Springs 1 Emergency Shutdown		Exempt from Rule 201 under Rule 285(mm)

POTENTIAL EMISSIONS SUMMARY FOR REGULATED POLLUTANTS
ANR BLUE LAKE/COLD SPRINGS 12/COLD SPRINGS 1 COMPRESSOR STATIONS

Unit	Unit Description	HP	Heat Input	Emission Rates													
				NOx		CO		VOC		PM		PM10		PM2.5		SO2	
			(MMBtu/hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Blue Lake Compressor Station																	
EUBLGEN-A	Blue Lake Generator Engine A	1,125	10.69	5.70	See group	1.60	See group	0.90	See group	0.11	See group	8.24E-04	See group	8.24E-04	See group	6.29E-03	See group
EUBLGEN-B	Blue Lake Generator Engine B	1,125	10.69	5.70	See group	1.60	See group	0.90	See group	0.11	See group	8.24E-04	See group	8.24E-04	See group	6.29E-03	See group
EUBLGEN-C	Blue Lake Generator Engine C	1,125	10.69	5.70	See group	1.60	See group	0.90	See group	0.11	See group	8.24E-04	See group	8.24E-04	See group	6.29E-03	See group
FGBLGENS	Permit Group for 3 Generator Engines: EUBLGEN-A thru C	-	-	See above	46.68	See above	13.10	See above	7.37	See above	0.00	See above	6.75E-03	See above	6.75E-03	See above	0.051
EUBLCMPR-A	Blue Lake Compressor Engine A	6,000	48.18	26.46	See group	37.04	See group	9.66	See group	2.33	See group	1.85	See group	1.85	See group	0.028	See group
EUBLCMPR-B	Blue Lake Compressor Engine B	6,000	48.18	26.46	See group	37.04	See group	9.66	See group	2.33	See group	1.85	See group	1.85	See group	0.028	See group
EUBLCMPR-C	Blue Lake Compressor Engine C	6,000	48.18	26.46	See group	37.04	See group	9.66	See group	2.33	See group	1.85	See group	1.85	See group	0.028	See group
FGBLCMPRS	Permit Group for 3 Compressor Engines: EUBLCOMP-A thru C	-	-	See above	198.41	See above	277.78	See above	72.42	See above	0.00	See above	13.88	See above	13.88	See above	0.21
EUBLHEATER-C	Blue Lake Withdrawal Gas Heater-C	-	25.28	2.75	12.06	2.31	10.13	0.15	0.66	0.21	0.92	0.052	0.229	0.052	0.229	0.017	0.072
EUBLHEATER-D	Blue Lake Withdrawal Gas Heater-D	-	25.28	2.75	12.06	2.31	10.13	0.15	0.66	0.21	0.92	0.052	0.229	0.052	0.229	0.017	0.072
EUBLGLYDHY	Blue Lake Glycol Dehydrator/Reboiler	-	3.00	0.29	1.29	0.25	1.08	With Controlled		0.022	0.098	0.022	0.098	0.022	0.098	1.76E-03	7.73E-03
EUBLGLYDHY	Blue Lake Dehydration System Thermal Oxidizer	-	1.00	0.098	0.43	0.082	0.36	0.20	0.86	7.45E-03	0.033	7.45E-03	0.033	7.45E-03	0.033	5.88E-04	2.58E-03
EUBLGLYDHY	Blue Lake Dehydration System Condenser	-	N/A	--	--	--	--	3.92	17.19	--	--	--	--	--	--	--	--
EUBLBOILER	Blue Lake Boiler	-	4.18	0.46	1.99	0.38	1.68	0.025	0.110	0.035	0.152	8.65E-03	3.79E-02	8.65E-03	3.79E-02	0.025	0.110
EUBLCLEANER	Blue Lake Cold Cleaner	--	N/A	--	--	--	--	0.054	0.24	--	--	--	--	--	--	--	--
FGBLCOMP	Blue Lake Fugitive emissions from component leaks	--	N/A	--	--	--	--	1.13	4.94	--	--	--	--	--	--	--	--
DVBLT-3401	Blue Lake Glycol Tank	--	N/A	--	--	--	--	0.071	0.31	--	--	--	--	--	--	--	--
DVBLT-3402	Blue Lake Condensate/Brine Tank	--	N/A	--	--	--	--	0.071	0.31	--	--	--	--	--	--	--	--
DVBLT-3403	Blue Lake Condensate/Brine Tank	--	N/A	--	--	--	--	0.071	0.31	--	--	--	--	--	--	--	--
DVBLT-3404	Blue Lake Glycol Tank	--	N/A	--	--	--	--	0.071	0.31	--	--	--	--	--	--	--	--
DVBLT-3302	Blue Lake Ethylene Glycol Tank	--	N/A	--	--	--	--	1.04E-04	4.54E-04	--	--	--	--	--	--	--	--
DVBLT-3303	Blue Lake Ethylene Glycol Recycle	--	N/A	--	--	--	--	1.04E-04	4.54E-04	--	--	--	--	--	--	--	--
DVBLT-3306	Blue Lake Waste Oil Tank	--	N/A	--	--	--	--	1.04E-04	4.54E-04	--	--	--	--	--	--	--	--
DVBLT-3701	Blue Lake Coolant Tank	--	N/A	--	--	--	--	3.13E-05	1.37E-04	--	--	--	--	--	--	--	--
DVBLV-3702	Blue Lake Coolant Recycle Tank	--	N/A	--	--	--	--	1.57E-05	6.86E-05	--	--	--	--	--	--	--	--
DVBLV-3703	Blue Lake Lube Oil Recycle Tank	--	N/A	--	--	--	--	0.022	0.094	--	--	--	--	--	--	--	--
DVBLV-3705	Blue Lake Engine Lube Oil Tank	--	N/A	--	--	--	--	0.022	0.094	--	--	--	--	--	--	--	--
DVBLV-3707	Blue Lake HP cyl. Lube Oil Tank	--	N/A	--	--	--	--	0.011	0.047	--	--	--	--	--	--	--	--
DVBLV-3709	Blue Lake Generator Lube Oil Tank	--	N/A	--	--	--	--	0.011	0.047	--	--	--	--	--	--	--	--
DVBLV-3307	Blue Lake Propane Reciever Tank	--	N/A	--	--	--	--	0.020	0.088	--	--	--	--	--	--	--	--
DVBLV-4307	Blue Lake Propane Reciever Tank	--	N/A	--	--	--	--	0.020	0.088	--	--	--	--	--	--	--	--
	Blue Lake Total Emissions			**102.82**	**272.93**	**121.25**	**314.26**	**37.69**	**106.16**	**7.79**	**2.12**	**5.70**	**14.51**	**5.70**	**14.51**	**0.16**	**0.53**

Cold Springs 12 Compressor Station																	
EUCS12EMRGEN-B	Cold Springs 12 Generator Engine B	580	4.64	19.18	84.02	12.79	56.01	1.28	5.60	0.090	0.39	0.044	0.19	0.044	0.19	2.73E-03	0.012
EUCS12CMPR-A	Cold Springs 12 Compressor Engine A	3,750	31.76	99.21	434.52	21.93	96.07	10.45	45.76	0.32	1.39	2.45E-03	0.011	2.45E-03	0.011	0.019	0.082
EUCS12CMPR-B	Cold Springs 12 Compressor Engine B	3,750	31.76	99.21	434.52	21.93	96.07	10.45	45.76	0.32	1.39	2.45E-03	0.011	2.45E-03	0.011	0.019	0.082
EUCS12CMPR-C	Cold Springs 12 Compressor Engine C	3,750	31.76	99.21	434.52	21.93	96.07	10.45	45.76	0.32	1.39	2.45E-03	0.011	2.45E-03	0.011	0.019	0.082
EUCS12GLYDHY	Cold Springs 12 Glycol Dehydrator/Reboiler	--	3.00	0.29	1.29	0.25	1.08	With Controlled		0.022	0.098	0.022	0.098	0.022	0.098	1.76E-03	7.73E-03
EUCS12GLYDHY	Cold Springs 12 Dehydration System Thermal Oxidizer	--	1.00	0.098	0.43	0.08	0.36	0.048	0.21	7.45E-03	0.033	7.45E-03	0.033	7.45E-03	0.033	5.88E-04	2.58E-03
EUCS12GLYDHY	Cold Springs 12 Dehydration System Condenser	--	N/A	--	--	--	--	0.97	4.23	--	--	--	--	--	--	--	--
EUCS12BOILER	Cold Springs 12 Boiler	--	2.51	0.27	1.20	0.23	1.01	0.015	0.066	0.021	0.091	5.19E-03	2.28E-02	5.19E-03	2.28E-02	0.015	0.066
EUCS12HEATER-C	Cold Springs 12 Withdrawal Gas Heater-C	--	25.33	2.76	12.09	2.32	10.15	0.15	0.66	0.21	0.92	0.052	0.230	0.052	0.230	0.017	0.073
EUCS12HEATER-D	Cold Springs 12 Withdrawal Gas Heater-D	--	25.33	2.76	12.09	2.32	10.15	0.15	0.66	0.21	0.92	0.052	0.230	0.052	0.230	0.017	0.073
FGCSCOMP	Cold Springs 12 Fugitive emissions from component leaks	--	N/A	--	--	--	--	1.12	4.91	--	--	--	--	--	--	--	--
DVCS41-1018	Cold Springs 12 Ethylene Glycol Tank	--	N/A	--	--	--	--	3.39E-05	1.49E-04	--	--	--	--	--	--	--	--
DVCSGT-2000A	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	--	N/A	--	--	--	--	1.42E-05	6.21E-05	--	--	--	--	--	--	--	--
DVCSGT-2000B	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	--	N/A	--	--	--	--	1.79E-05	7.83E-05	--	--	--	--	--	--	--	--
DVCS42-1001A	Cold Springs 12 Brine Tank A	--	N/A	--	--	--	--	0.042	0.19	--	--	--	--	--	--	--	--
DVCS42-1001B	Cold Springs 12 Brine Tank B	--	N/A	--	--	--	--	0.042	0.19	--	--	--	--	--	--	--	--
DVCS-T21	Cold Springs 12 Condensate Tank	--	N/A	--	--	--	--	0.071	0.31	--	--	--	--	--	--	--	--
DVCS42-1002	Cold Springs 12 Methanol Storage Tank	--	N/A	--	--	--	--	0.071	0.31	--	--	--	--	--	--	--	--
DVCS41-1019	Cold Springs 12 Lube Oil Tank	--	N/A	--	--	--	--	0.023	0.10	--	--	--	--	--	--	--	--
DVCS41-1020	Cold Springs 12 Lube Oil Tank	--	N/A	--	--	--	--	4.66E-03	0.020	--	--	--	--	--	--	--	--
DVCS41-1021	Cold Springs 12 Lube Oil Tank	--	N/A	--	--	--	--	5.93E-03	0.026	--	--	--	--	--	--	--	--
DVCS42-1003	Cold Springs 12 Waste Oil Tank	--	N/A	--	--	--	--	0.042	0.19	--	--	--	--	--	--	--	--
Cold Springs 12 Total Emissions				**322.98**	**1,414.67**	**83.79**	**366.98**	**35.38**	**154.96**	**1.51**	**6.62**	**0.19**	**0.84**	**0.19**	**0.84**	**0.11**	**0.48**
Cold Springs 1 Compressor Station																	
EUCS1CNDTANKS	Cold Springs 1 Liquid Stabilization Thermal Oxidizer	--	1.00	0.52	2.27	2.35	10.31	5.61E-03	0.025	5.81E-03	0.025	5.81E-03	0.025	1.94E-03	8.49E-03	5.61E-03	0.025
EUCS1CNDTANK1	Cold Springs 1 Stabilized Condensate Tank A	--	--	--	--	--	--	5.67E-03	0.025	--	--	--	--	--	--	--	--
EUCS1CNDTANK2	Cold Springs 1 Stabilized Condensate Tank B	--	--	--	--	--	--	5.67E-03	0.025	--	--	--	--	--	--	--	--
EUCS1CNDTANK3	Cold Springs 1 Stabilized Condensate Tank C	--	--	--	--	--	--	5.67E-03	0.025	--	--	--	--	--	--	--	--
EUCS1CNDTANK4	Cold Springs 1 Stabilized Condensate Tank D	--	--	--	--	--	--	5.67E-03	0.025	--	--	--	--	--	--	--	--
EUCS1LSHEATER	Cold Springs 1 Stabilizer Heater	--	5.00	0.54	2.39	0.46	2.00	0.030	0.131	0.041	0.181	0.010	4.53E-02	0.010	4.53E-02	3.27E-03	1.43E-02
EUCS1WDHEATER	Cold Springs 1 Gas Heater	--	15.00	1.63	7.16	1.37	6.01	0.090	0.394	0.12	0.54	0.031	0.136	0.031	0.136	9.80E-03	4.29E-02
EUCS1BOILER	Cold Springs 1 Boiler	--	3.50	0.38	1.67	0.32	1.40	0.021	0.092	0.029	0.127	7.24E-03	3.17E-02	7.24E-03	3.17E-02	2.29E-03	1.00E-02
EUCS1GLYDHY	Cold Springs 1 Dehy Reboiler	--	1.00	0.10	0.43	0.08	0.36	With Controlled		1.86E-03	8.16E-03	7.45E-03	0.033	7.45E-03	0.033	5.88E-04	2.58E-03
EUCS1GLYDHY	Cold Springs 1 Glycol Dehydration System Thermal Oxidizer	--	N/A	0.05	0.21	0.04	0.18	0.033	0.15	9.31E-04	4.08E-03	3.73E-03	0.016	3.73E-03	0.016	2.94E-04	1.29E-03
EUCS1GLYDHY	Cold Springs 1 Glycol Dehydration System Condenser	--	0.50	--	--	--	--	1.67	7.32	--	--	--	--	--	--	--	--
FGCS1COMP	Cold Springs 1 Fugitive emissions from component leaks	--	N/A	--	--	--	--	1.13	4.94	--	--	--	--	--	--	--	--
EUCS1V6009A	LSP NGL Storage Vessel A	--	N/A	--	--	--	--	0.13	0.56	--	--	--	--	--	--	--	--
EUCS1V6009B	LSP NGL Storage Vessel B	--	N/A	--	--	--	--	0.13	0.56	--	--	--	--	--	--	--	--
EGCS1BRINETK1	Brine Condensate Tank 1	--	N/A	--	--	--	--	0.069	0.30	--	--	--	--	--	--	--	--
EGCS1BRINETK2	Brine Condensate Tank 2	--	N/A	--	--	--	--	0.069	0.30	--	--	--	--	--	--	--	--
EGCS1GLYTK1	Ethylene Glycol Tank 1	--	N/A	--	--	--	--	1.01E-04	4.44E-04	--	--	--	--	--	--	--	--
EGCS1GLYTK2	Ethylene Glycol Tank 2	--	N/A	--	--	--	--	1.01E-04	4.44E-04	--	--	--	--	--	--	--	--
EGCS1LUBEOILTK1	Lube Oil Tank 1	--	N/A	--	--	--	--	0.011	0.046	--	--	--	--	--	--	--	--
EGCS1LUBEOILTK2	Lube Oil Tank 2	--	N/A	--	--	--	--	0.010	0.046	--	--	--	--	--	--	--	--
EGCS1USEDLUBEOILTK	Used Oil Tank	--	N/A	--	--	--	--	0.070	0.31	--	--	--	--	--	--	--	--
EUCS1LUBET5124	Compresser Cylinder Lube Oil Tank	--	N/A	--	--	--	--	1.27E-03	5.57E-03	--	--	--	--	--	--	--	--
EGCS1COOLANTTK	Glycol/Water Tank	--	N/A	--	--	--	--	1.85E-05	8.10E-05	--	--	--	--	--	--	--	--
EUCS1BRINET6008	LSP Brine Tank	--	N/A	--	--	--	--	0.036	0.16	--	--	--	--	--	--	--	--
EUCS1PROPANE	Propane Pressure Tank	--	N/A	--	--	--	--	6.35E-03	0.028	--	--	--	--	--	--	--	--
Cold Springs 1 Total Emissions				**3.23**	**14.13**	**4.63**	**20.27**	**3.53**	**15.45**	**0.20**	**0.89**	**0.066**	**0.29**	**0.062**	**0.270**	**0.022**	**0.096**
Total Emissions - Cold Springs 12/Blue Lake/Cold Springs 1				**429.03**	**1,701.73**	**209.66**	**701.52**	**76.60**	**276.57**	**9.50**	**9.63**	**5.95**	**15.63**	**5.95**	**15.62**	**0.30**	**1.10**

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POTENTIAL EMISSIONS SUMMARY FOR GHG
ANR BLUE LAKE/COLD SPRINGS 12/COLD SPRINGS 1 COMPRESSOR STATIONS

Unit	Unit Description	HP	Heat Input	Emission Rates									
				CO2		CH4		N2O		Total GHGs		CO2e	
			(MMBtu/hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Blue Lake Compressor Station													
EUBLGEN-A	Blue Lake Generator Engine A	1,125	10.69	1,250.49	See group	0.024	See group	2.36E-03	See group	1,250.51	See group	1,251.78	See group
EUBLGEN-B	Blue Lake Generator Engine B	1,125	10.69	1,250.49	See group	0.024	See group	2.36E-03	See group	1,250.51	See group	1,251.78	See group
EUBLGEN-C	Blue Lake Generator Engine C	1,125	10.69	1,250.49	See group	0.024	See group	2.36E-03	See group	1,250.51	See group	1,251.78	See group
FGBLGENS	Permit Group for 3 Generator Engines: EUBLGEN-A thru C	-	-	See above	10,241.49	See above	0.19	See above	0.019	See above	10,241.70	See above	10,252.07
EUBLCMPR-A	Blue Lake Compressor Engine A	6,000	48.18	5,635.97	See group	0.11	See group	0.011	See group	5,636.08	See group	5,641.79	See group
EUBLCMPR-B	Blue Lake Compressor Engine B	6,000	48.18	5,635.97	See group	0.11	See group	0.011	See group	5,636.08	See group	5,641.79	See group
EUBLCMPR-C	Blue Lake Compressor Engine C	6,000	48.18	5,635.97	See group	0.11	See group	0.011	See group	5,636.08	See group	5,641.79	See group
FGBLCMPRS	Permit Group for 3 Compressor Engines: EUBLCOMP-A thru C	-	-	See above	42,269.75	See above	0.80	See above	0.08	See above	42,270.62	See above	42,313.40
EUBLHEATER-C	Blue Lake Withdrawal Gas Heater-C	-	25.28	2,957.30	12,952.99	0.056	0.244	5.57E-03	2.44E-02	2,957.36	12,953.26	2,960.36	12,966.37
EUBLHEATER-D	Blue Lake Withdrawal Gas Heater-D	-	25.28	2,957.30	12,952.99	0.056	0.244	5.57E-03	2.44E-02	2,957.36	12,953.26	2,960.36	12,966.37
EUBLGLYDHY	Blue Lake Glycol Dehydrator/Reboiler	-	3.00	350.93	1,537.08	With Controlled		6.61E-04	2.90E-03	350.94	1,537.11	351.29	1,538.67
EUBLGLYDHY	Blue Lake Dehydration System Thermal Oxidizer	-	1.00	116.98	512.36	0.12	0.55	2.20E-04	9.66E-04	117.10	512.91	120.22	526.55
EUBLGLYDHY	Blue Lake Dehydration System Condenser	-	N/A	--	--	2.49	10.93	--	--	2.49	10.93	62.37	273.18
EUBLBOILER	Blue Lake Boiler	-	4.18	488.97	2,141.67	9.22E-03	4.04E-02	9.22E-04	4.04E-03	488.98	2,141.71	489.47	2,143.88
EUBLCLEANER	Blue Lake Cold Cleaner	--	N/A	--	--	--	--	--	--	--	--	--	--
FGBLCOMP	Blue Lake Fugitive emissions from component leaks	--	N/A	--	--	13.67	59.89	--	--	13.67	59.89	341.81	1,497.14
DVBLT-3401	Blue Lake Glycol Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3402	Blue Lake Condensate/Brine Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3403	Blue Lake Condensate/Brine Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3404	Blue Lake Glycol Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3302	Blue Lake Ethylene Glycol Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3303	Blue Lake Ethylene Glycol Recycle	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3306	Blue Lake Waste Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLT-3701	Blue Lake Coolant Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-3702	Blue Lake Coolant Recycle Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-3703	Blue Lake Lube Oil Recycle Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-3705	Blue Lake Engine Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-3707	Blue Lake HP cyl. Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-3709	Blue Lake Generator Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-3307	Blue Lake Propane Reciever Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVBLV-4307	Blue Lake Propane Reciever Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
	Blue Lake Total Emissions			**27,530.84**	**82,608.32**	**16.80**	**72.88**	**0.052**	**0.16**	**27,547.70**	**82,681.38**	**27,966.58**	**84,477.62**
Cold Springs 12 Compressor Station													
EUCS12EMRGEN-B	Cold Springs 12 Generator Engine B	580	4.64	542.77	2,377.35	0.010	0.045	1.02E-03	4.48E-03	542.79	2,377.40	543.34	2,379.81
EUCS12CMPR-A	Cold Springs 12 Compressor Engine A	3,750	31.76	3,715.20	16,272.57	0.070	0.31	7.00E-03	0.031	3,715.28	16,272.91	3,719.04	16,289.38
EUCS12CMPR-B	Cold Springs 12 Compressor Engine B	3,750	31.76	3,715.20	16,272.57	0.070	0.31	7.00E-03	0.031	3,715.28	16,272.91	3,719.04	16,289.38
EUCS12CMPR-C	Cold Springs 12 Compressor Engine C	3,750	31.76	3,715.20	16,272.57	0.070	0.31	7.00E-03	0.031	3,715.28	16,272.91	3,719.04	16,289.38
EUCS12GLYDHY	Cold Springs 12 Glycol Dehydrator/Reboiler	--	3.00	350.93	1,537.08	With Controlled		6.61E-04	2.90E-03	350.94	1,537.11	351.29	1,538.67
EUCS12GLYDHY	Cold Springs 12 Dehydration System Thermal Oxidizer	--	1.00	116.98	512.36	0.015	0.064	2.20E-04	9.66E-04	116.99	512.91	117.46	514.48
EUCS12GLYDHY	Cold Springs 12 Dehydration System Condenser	--	N/A	--	--	0.29	1.28	--	--	2.49	10.93	7.28	31.88
EUCS12BOILER	Cold Springs 12 Boiler	--	2.51	293.61	1,286.03	5.53E-03	2.42E-02	5.53E-04	2.42E-03	293.62	1,286.05	293.92	1,287.35
EUCS12HEATER-C	Cold Springs 12 Withdrawal Gas Heater-C	--	25.33	2,963.03	12,978.09	0.056	0.245	5.58E-03	2.45E-02	2,963.10	12,978.36	2,966.10	12,991.50
EUCS12HEATER-D	Cold Springs 12 Withdrawal Gas Heater-D	--	25.33	2,963.03	12,978.09	0.056	0.245	5.58E-03	2.45E-02	2,963.10	12,978.36	2,966.10	12,991.50
FGCSCOMP	Cold Springs 12 Fugitive emissions from component leaks	--	N/A	--	--	13.35	58.47	--	--	13.35	58.47	333.73	--
DVCS41-1018	Cold Springs 12 Ethylene Glycol Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCSGT-2000A	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCSGT-2000B	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS42-1001A	Cold Springs 12 Brine Tank A	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS42-1001B	Cold Springs 12 Brine Tank B	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS-T21	Cold Springs 12 Condensate Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS42-1002	Cold Springs 12 Methanol Storage Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS41-1019	Cold Springs 12 Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS41-1020	Cold Springs 12 Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS41-1021	Cold Springs 12 Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
DVCS42-1003	Cold Springs 12 Waste Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
	Cold Springs 12 Total Emissions			**18,375.96**	**80,486.72**	**13.99**	**61.29**	**0.035**	**0.15**	**18,392.20**	**80,558.32**	**18,736.32**	**80,603.32**
Cold Springs 1 Compressor Station													
EUCS1CNDTANKS	Cold Springs 1 Liquid Stabilization Thermal Oxidizer	--	1.00	838.75	3673.72	0.016	0.069	--	--	838.76	3673.79	839.14	3675.45
EUCS1CNDTANK1	Cold Springs 1 Stabilized Condensate Tank A	--	--	--	--	--	--	--	--	--	--	--	--
EUCS1CNDTANK2	Cold Springs 1 Stabilized Condensate Tank B	--	--	--	--	--	--	--	--	--	--	--	--
EUCS1CNDTANK3	Cold Springs 1 Stabilized Condensate Tank C	--	--	--	--	--	--	--	--	--	--	--	--
EUCS1CNDTANK4	Cold Springs 1 Stabilized Condensate Tank D	--	--	--	--	--	--	--	--	--	--	--	--
EUCS1LSHEATER	Cold Springs 1 Stabilizer Heater	--	5.00	584.89	2561.80	0.011	4.83E-02	1.10E-03	4.83E-03	584.90	2561.86	585.49	2564.45
EUCS1WDHEATER	Cold Springs 1 Gas Heater	--	15.00	1754.66	7685.41	0.033	0.145	3.31E-03	1.45E-02	1754.70	7685.57	1756.47	7693.35
EUCS1BOILER	Cold Springs 1 Boiler	--	3.50	409.42	1793.26	7.72E-03	3.38E-02	7.72E-04	3.38E-03	409.43	1793.30	409.84	1795.11
EUCS1GLYDHY	Cold Springs 1 Dehy Reboiler	--	1.00	116.98	512.36	With Controlled		2.20E-04	9.66E-04	116.98	512.37	117.10	512.89
EUCS1GLYDHY	Cold Springs 1 Glycol Dehydration System Thermal Oxidizer	--	N/A	58.49	256.18	0.013	0.059	1.10E-04	4.83E-04	58.50	256.24	58.88	257.91
EUCS1GLYDHY	Cold Springs 1 Glycol Dehydration System Condenser	--	0.50	--	--	0.67	2.93	--	--	2.49	10.93	16.72	73.25
FGCS1COMP	Cold Springs 1 Fugitive emissions from component leaks	--	N/A	--	--	13.67	59.89	--	--	13.67	59.89	341.81	1497.14
EUCS1V6009A	LSP NGL Storage Vessel A	--	N/A	--	--	--	--	--	--	--	--	--	--
EUCS1V6009B	LSP NGL Storage Vessel B	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1BRINETK1	Brine Condensate Tank 1	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1BRINETK2	Brine Condensate Tank 2	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1GLYTK1	Ethylene Glycol Tank 1	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1GLYTK2	Ethylene Glycol Tank 2	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1LUBEOILTK1	Lube Oil Tank 1	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1LUBEOILTK2	Lube Oil Tank 2	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1USEDLUBEOIL	Used Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
EUCS1LUBET5124	Compresser Cylinder Lube Oil Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
EGCS1COOLANTTK	Glycol/Water Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
EUCS1BRINET6008	LSP Brine Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
EUCS1PROPANE	Propane Pressure Tank	--	N/A	--	--	--	--	--	--	--	--	--	--
	Cold Springs 1 Total Emissions			**3,763.18**	**16,482.73**	**14.42**	**63.17**	**5.51E-03**	**2.41E-02**	**3,779.44**	**16,553.94**	**4,125.47**	**18,069.55**
	Total Emissions - Cold Springs 12/Blue Lake/Cold Springs 1			**49,669.99**	**179,577.77**	**45.22**	**197.34**	**0.09**	**0.33**	**49,719.34**	**179,793.64**	**50,828.36**	**183,150.50**

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HAZARDOUS AIR POLLUTANTS EMISSIONS SUMMARY
ANR BLUE LAKE/COLDSPRINGS12/COLD SPRING1 COMPRESSOR STATIONS

Title V Unit ID	Unit Description	HP	MMBtu/hr	HCHO Emissions Potential Emissions		Total HAP Emissions Potential Emissions	
				(lb/hr)	(tpy)	(lb/hr)	(tpy)
EUBLGEN-A	Blue Lake Generator Engine A	1,125	10.69	0.56	See Group	0.77	See Group
EUBLGEN-B	Blue Lake Generator Engine B	1,125	10.69	0.56	See Group	0.77	See Group
EUBLGEN-C	Blue Lake Generator Engine C	1,125	10.69	0.56	See Group	0.77	See Group
FGBLGENS	Permit Group for 3 Generator Engines: EUBLGEN-A thru C			See Individual	4.62	See Individual	6.32
EUBLCMPR-A	Blue Lake Compressor Engine A	6,000	48.18	2.66	See Group	3.83	See Group
EUBLCMPR-B	Blue Lake Compressor Engine B	6,000	48.18	2.66	See Group	3.83	See Group
EUBLCMPR-C	Blue Lake Compressor Engine C	6,000	48.18	2.66	See Group	3.83	See Group
FGBLCMPRS	Permit Group for 3 Compressor Engines: EUBLCOMP-A thru C			See Individual	19.95	See Individual	28.74
EUBLHEATER-C	Blue Lake Withdrawal Gas Heater-C	-	25.28	1.90	8.30	47.73	209.05
EUBLHEATER-D	Blue Lake Withdrawal Gas Heater-D	-	25.28	1.90	8.30	47.73	209.05
EUBLGLYDHY	Blue Lake Glycol Dehydrator/Reboiler	-	3.00	-	-	With Controlled	
EUBLGLYDHY	Blue Lake Dehydration System Thermal Oxidizer	-	1.00	-	-	0.14	0.63
EUBLGLYDHY	Blue Lake Dehydration System Condenser	-	N/A	-	-	2.90	12.68
EUBLBOILER	Blue Lake Boiler	-	4.18	0.31	1.37	7.89	34.57
EUBLCLEANER	Blue Lake Cold Cleaner	--	N/A	-	-	-	-
FGBLCOMP	Blue Lake Fugitive emissions from component leak	--	N/A	-	-	0.12	0.54
DVBLT-3401	Blue Lake Glycol Tank	--	N/A	-	-	-	-
DVBLT-3402	Blue Lake Condensate/Brine Tank	--	N/A	-	-	-	-
DVBLT-3403	Blue Lake Condensate/Brine Tank	--	N/A	-	-	-	-
DVBLT-3404	Blue Lake Glycol Tank	--	N/A	-	-	-	-
DVBLT-3302	Blue Lake Ethylene Glycol Tank	--	N/A	-	-	-	-
DVBLT-3303	Blue Lake Ethylene Glycol Recycle	--	N/A	-	-	-	-
DVBLT-3306	Blue Lake Waste Oil Tank	--	N/A	-	-	-	-
DVBLT-3701	Blue Lake Coolant Tank	--	N/A	-	-	-	-
DVBLV-3702	Blue Lake Coolant Recycle Tank	--	N/A	-	-	-	-
DVBLV-3703	Blue Lake Lube Oil Recycle Tank	--	N/A	-	-	-	-
DVBLV-3705	Blue Lake Engine Lube Oil Tank	--	N/A	-	-	-	-
DVBLV-3707	Blue Lake HP cyl. Lube Oil Tank	--	N/A	-	-	-	-
DVBLV-3709	Blue Lake Generator Lube Oil Tank	--	N/A	-	-	-	-
DVBLV-3307	Blue Lake Propane Reciever Tank	--	N/A	-	-	-	-
DVBLV-4307	Blue Lake Propane Reciever Tank	--	N/A	-	-	-	-
			Total Emissions - Blue Lake	13.78	42.55	120.33	501.59

EUCS12EMRGEN-B	Cold Springs 12 Generator Engine B	580	4.64	0.095	0.42	0.15	0.66
EUCS12CMPR-A	Cold Springs 12 Compressor Engine A	3,750	31.76	1.68	7.34	2.29	10.04
EUCS12CMPR-B	Cold Springs 12 Compressor Engine B	3,750	31.76	1.68	7.34	2.29	10.04
EUCS12CMPR-C	Cold Springs 12 Compressor Engine C	3,750	31.76	1.68	7.34	2.29	10.04
EUCS12GLYDHY	Cold Springs 12 Glycol Dehydrator/Reboiler	--	3.00	-	-	With Controlled	
EUCS12GLYDHY	Cold Springs 12 Dehydration System Thermal Oxid	--	1.00	-	-	0.041	0.18
EUCS12GLYDHY	Cold Springs 12 Dehydration System Condenser	--	N/A	-	-	0.81	3.56
EUCS12BOILER	Cold Springs 12 Boiler	--	2.51	0.19	0.82	4.74	20.76
EUCS12HEATER-C	Cold Springs 12 Withdrawal Gas Heater-C	--	25.33	1.90	8.32	47.82	209.46
EUCS12HEATER-D	Cold Springs 12 Withdrawal Gas Heater-D	--	25.33	1.90	8.32	47.82	209.46
FGCSCOMP	Cold Springs 12 Fugitive emissions from componer	--	N/A	-	-	0.12	0.53
DVCS41-1018	Cold Springs 12 Ethylene Glycol Tank	--	N/A	-	-	-	-
DVCSGT-2000A	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	--	N/A	-	-	-	-
DVCSGT-2000B	Cold Springs 12 Di-Ethylene/ Ethylene Glycol Tank	--	N/A	-	-	-	-
DVCS42-1001A	Cold Springs 12 Brine Tank A	--	N/A	-	-	-	-
DVCS42-1001B	Cold Springs 12 Brine Tank B	--	N/A	-	-	-	-
DVCS-T21	Cold Springs 12 Condensate Tank	--	N/A	-	-	-	-
DVCS42-1002	Cold Springs 12 Methanol Storage Tank	--	N/A	-	-	0.071	0.31
DVCS41-1019	Cold Springs 12 Lube Oil Tank	--	N/A	-	-	-	-
DVCS41-1020	Cold Springs 12 Lube Oil Tank	--	N/A	-	-	-	-
DVCS41-1021	Cold Springs 12 Lube Oil Tank	--	N/A	-	-	-	-
DVCS42-1003	Cold Springs 12 Waste Oil Tank	--	N/A	-	-	-	-
	Total Emissions - Cold Springs 12			**9.11**	**39.92**	**108.46**	**475.04**
EUCS1CNDTANKS	Cold Springs 1 Liquid Stabilization Thermal Oxidize	--	1.00	-	-	-	-
EUCS1CNDTANK1	Cold Springs 1 Stabilized Condensate Tank A	--	--	-	-	-	-
EUCS1CNDTANK2	Cold Springs 1 Stabilized Condensate Tank B	--	--	-	-	-	-
EUCS1CNDTANK3	Cold Springs 1 Stabilized Condensate Tank C	--	--	-	-	-	-
EUCS1CNDTANK4	Cold Springs 1 Stabilized Condensate Tank D	--	--	-	-	-	-
EUCS1LSHEATER	Cold Springs 1 Stabilizer Heater	--	5.00	0.38	1.64	9.44	41.35
EUCS1WDHEATER	Cold Springs 1 Gas Heater	--	15.00	1.13	4.93	28.32	124.04
EUCS1BOILER	Cold Springs 1 Boiler	--	3.50	0.26	1.15	6.61	28.94
EUCS1GLYDHY	Cold Springs 1 Dehy Reboiler	--	1.00	-	-	With Controlled	
EUCS1GLYDHY	Cold Springs 1 Glycol Dehydration System Condens	--	N/A	-	-	0.027	0.12
EUCS1GLYDHY	Cold Springs 1 Glycol Dehydration System Thermal	--	0.50	-	-	1.34	5.89
FGCS1COMP	Cold Springs 1 Fugitive emissions from component	--	N/A	-	-	0.12	0.54
EUCS1V6009A	LSP NGL Storage Vessel A	--	N/A	-	-	-	-
EUCS1V6009B	LSP NGL Storage Vessel B	--	N/A	-	-	-	-
EGCS1BRINETK1	Brine Condensate Tank 1	--	N/A	-	-	-	-
EGCS1BRINETK2	Brine Condensate Tank 2	--	N/A	-	-	-	-
EGCS1GLYTK1	Ethylene Glycol Tank 1	--	N/A	-	-	-	-
EGCS1GLYTK2	Ethylene Glycol Tank 2	--	N/A	-	-	-	-
EGCS1LUBEOILTK1	Lube Oil Tank 1	--	N/A	-	-	-	-
EGCS1LUBEOILTK2	Lube Oil Tank 2	--	N/A	-	-	-	-
GCS1USEDLUBEOILT	Used Oil Tank	--	N/A	-	-	-	-
EUCS1LUBET5124	Compresser Cylinder Lube Oil Tank	--	N/A	-	-	-	-
EGCS1COOLANTTK	Glycol/Water Tank	--	N/A	-	-	-	-
EUCS1BRINET6008	LSP Brine Tank	--	N/A	-	-	-	-
EUCS1PROPANE	Propane Pressure Tank	--	N/A	-	-	-	-
	Total Emissions - Cold Springs 1			**1.76**	**7.72**	**45.86**	**200.88**
	Total Emissions - Blue Lake/Cold Springs 12/Cold Springs 1			**24.65**	**90.19**	**274.65**	**1,177.52**

Notes on Emission Estimation Methods:

1) Formaldehyde (HCHO) and Total HAP emission factors for compressor engines are based on AP-42 Section 3.2-2 (7/00).
2) Emissions provided are for representation purposes only; emission and operational rates are not intended to convey any limitations or restrictions

App #202100068 & App #202100069

Source	EUBLHEATER-C
Fuel Used:	Natural Gas
Minimum Higher Heating Value (HHV) (Btu/scf):	918
Maximum Higher Heating Value (HHV) (Btu/scf):	1,065
Heat Input (MMBtu/hr)	25.28
Minimum Hourly Fuel Consumption (scf/hr):	23,738
Maximum Hourly Fuel Consumption (scf/hr):	27,539
Control Device:	N/A
Stack Designation:	N/A

Summary of Operational Restrictions:

Annual Hours of Operation (hr/yr):	8,760
Annual Fuel Consumption (MMscf/yr):	241.2

Criteria Pollutant Emission Factors:

Pollutant	Emission Factor	Units	Reference
NOx	100.00	lb/MMscf	a
CO	84.00	lb/MMscf	a
VOC	5.50	lb/MMscf	a
PM (Filterable + Condensable)	7.60	lb/MMscf	a
PM10 (Filterable)	1.90	lb/MMscf	a
PM2.5 (Filterable)	1.90	lb/MMscf	a
SO2	0.6	lb/MMscf	a

[a] AP-42, 5th ed., Natural Gas Combustion, Tables 1.4-1 & 1.4-2.

Criteria Pollutant Calculated Emissions:

Pollutant	Emission Rate lb/hr	Calculation Methodology	Potential Emissions [c] ton/yr
NOx	2.75	b	12.06
CO	2.31	b	10.13
VOC	0.15	b	0.66
PM (Filterable + Condensable)	0.21	b	0.92
PM10 (Filterable)	0.052	b	0.229
PM2.5 (Filterable)	0.052	b	0.229
SO2	0.017	b	0.072

[b] Potential Emissions (lb/hr) = Maximum Hourly Fuel Consumption (scf/hr) × Emission Factor (lb/MMscf) x (1 MMscf/1,000,000 scf)
[c] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

HAP Calculated Emissions:

Pollutant	Emission Factor (lb/MMBtu)[d]	Potential Emissions (lb/hr)[e]	Potential Emissions (tons/yr)[f]
2-Methylnaphthalene	2.40E-05	6.07E-04	2.66E-03
3-Methylcholanthrene	1.80E-06	4.55E-05	1.99E-04
7,12-Dimethylbenz(a)anthracene	1.60E-05	4.04E-04	1.77E-03
Acenaphthene	1.80E-06	4.55E-05	1.99E-04
Acenaphthylene	1.80E-06	4.55E-05	1.99E-04
Anthracene	2.40E-06	6.07E-05	2.66E-04
Benz(a)anthracene	1.80E-06	4.55E-05	1.99E-04
Benzene	2.10E-03	0.0531	0.2325
Benzo(a)pyrene	1.20E-06	3.03E-05	1.33E-04
Benzo(b)fluoranthene	1.80E-06	4.55E-05	1.99E-04
Benzo(g,h,i)perylene	1.20E-06	3.03E-05	1.33E-04
Benzo(k)fluoranthene	1.80E-06	4.55E-05	1.99E-04
Chrysene	1.80E-06	4.55E-05	1.99E-04
Dichlorobenzene	1.20E-03	0.0303	0.1329
Fluoranthene	3.00E-06	7.58E-05	3.32E-04
Fluorene	2.80E-06	7.08E-05	3.10E-04
Formaldehyde	0.0750	1.90	8.30
Indeno(1,2,3-c,d)pyrene	1.80E-06	4.55E-05	1.99E-04
n-Hexane	1.80	45.51	199.32
Naphthalene	6.10E-04	0.0154	0.0675
Phenanthrene	1.70E-05	4.30E-04	1.88E-03
Pyrene	5.00E-06	1.26E-04	5.54E-04
Toluene	3.40E-03	0.0860	0.3765
Arsenic	2.00E-04	5.06E-03	2.21E-02
Beryllium	1.20E-05	3.03E-04	1.33E-03
Cadmium	1.10E-03	0.0278	0.1218
Chromium	1.40E-03	0.0354	0.1550
Cobalt	8.40E-05	2.12E-03	9.30E-03
Manganese	3.80E-04	9.61E-03	4.21E-02
Mercury	2.60E-04	6.57E-03	2.88E-02
Nickel	2.10E-03	0.0531	0.2325
Selenium	2.40E-05	6.07E-04	2.66E-03
Total	**1.89**	**47.73**	**209.05**

[d] U.S. EPA *AP-42* emission factor, 5th ed., Natural Gas Combustion, Tables 1.4-3 & 1.4-4.

[e] Potential Emissions (lb/hr) = Rated Capacity (MMBtu/hr) × Emission Factor (lb/MMBtu)

[f] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

Potential Greenhouse Gas (GHG) Calculated Emissions:

Pollutant	Uncontrolled Emission Factor[2]	Factor Units[2]	Emissions (lb/hr)	Emissions (TPY)	Global Warming Potential (GWP)[2]	CO2e Emissions (lb/hr)	CO2e Emissions (TPY)
CO_2	53.06	kg CO_2/MMBtu	2957.30	12952.99	1	2957.30	12952.99
CH_4	1.00E-03	kg CH_4/MMBtu	0.0557	0.2441	25	1.39	6.10
N_2O	1.00E-04	kg N_2O/MMBtu	5.57E-03	2.44E-02	298	1.66	7.27
TOTAL GHGs	--	--	**2957.36**	**12953.26**	--	--	--
TOTAL GHGs (CO_2e)	--	--	--	--	--	**2960.36**	**12966.37**

[1] Heat input based on fuel consumption and permitted HP.

[2] Based on 40 CFR 98 Subpart C, 98.33(a)(1)(i), Tier 1 Methodology, Equation C-1 and using source specific heat input.

GHG Emissions (lb/hr) = EF_{GHG} (kg/MMBtu) * 2.204623 lb/kg * Source Specific Heat Input (MMbtu/hr)

GHG Emissions (TPY) = GHG Emissions (lb/hr) * Annual Operating Hours (hr/yr) * 1 Ton/2000 lb

CO_2e Emissions (TPY) = Σ (GHG Emissions (tpy) * GWP)

Where:

EF_{GHG} = Fuel-specific default CO_2, CH_4, or N_2O emission factors from Table C-1 for CO_2 (Natural gas - Weighted U.S. Average) and Table C-2 for CH_4 and N_2O (Natural Gas) of 40 CFR Part 98, Subpart C (kg/MMBtu)

Heat Input = Btu/hp-hr x Site-rated hp x (1 MMBtu/1,000,000 Btu) = MMBtu/hr

GWP = Global Warming Potentials, 40 CFR 98, Subpart A, Table A-1

TITLE V RENEWAL
ANR PIPELINE COMPANY
BLUE LAKE COMPRESSOR STATION, MICHIGAN

Source	EUBLHEATER-C
Fuel Used:	Natural Gas
Minimum Higher Heating Value (HHV) (Btu/scf):	918
Maximum Higher Heating Value (HHV) (Btu/scf):	1,065
Heat Input (MMBtu/hr)	25.28
Minimum Hourly Fuel Consumption (scf/hr):	23,738
Maximum Hourly Fuel Consumption (scf/hr):	27,539
Control Device:	N/A
Stack Designation:	N/A

Summary of Operational Restrictions:

Annual Hours of Operation (hr/yr):	8,760
Annual Fuel Consumption (MMscf/yr):	241.2

Criteria Pollutant Emission Factors:

Pollutant	Emission Factor	Units	Reference
NOx	100.00	lb/MMscf	a
CO	84.00	lb/MMscf	a
VOC	5.50	lb/MMscf	a
PM (Filterable + Condensable)	7.60	lb/MMscf	a
PM10 (Filterable)	1.90	lb/MMscf	a
PM2.5 (Filterable)	1.90	lb/MMscf	a
SO2	0.6	lb/MMscf	a

[a] AP-42, 5th ed., Natural Gas Combustion, Tables 1.4-1 & 1.4-2.

Criteria Pollutant Calculated Emissions:

Pollutant	Emission Rate lb/hr	Calculation Methodology	Potential Emissions [c] ton/yr
NOx	2.75	b	12.06
CO	2.31	b	10.13
VOC	0.15	b	0.66
PM (Filterable + Condensable)	0.21	b	0.92
PM10 (Filterable)	0.052	b	0.229
PM2.5 (Filterable)	0.052	b	0.229
SO2	0.017	b	0.072

[b] Potential Emissions (lb/hr) = Maximum Hourly Fuel Consumption (scf/hr) × Emission Factor (lb/MMscf) x (1 MMscf/1,000,000 scf)
[c] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

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HAP Calculated Emissions:

Pollutant	Emission Factor (lb/MMBtu)[d]	Potential Emissions (lb/hr)[e]	Potential Emissions (tons/yr)[f]
2-Methylnaphthalene	2.40E-05	6.07E-04	2.66E-03
3-Methylcholanthrene	1.80E-06	4.55E-05	1.99E-04
7,12-Dimethylbenz(a)anthracene	1.60E-05	4.04E-04	1.77E-03
Acenaphthene	1.80E-06	4.55E-05	1.99E-04
Acenaphthylene	1.80E-06	4.55E-05	1.99E-04
Anthracene	2.40E-06	6.07E-05	2.66E-04
Benz(a)anthracene	1.80E-06	4.55E-05	1.99E-04
Benzene	2.10E-03	0.0531	0.2325
Benzo(a)pyrene	1.20E-06	3.03E-05	1.33E-04
Benzo(b)fluoranthene	1.80E-06	4.55E-05	1.99E-04
Benzo(g,h,i)perylene	1.20E-06	3.03E-05	1.33E-04
Benzo(k)fluoranthene	1.80E-06	4.55E-05	1.99E-04
Chrysene	1.80E-06	4.55E-05	1.99E-04
Dichlorobenzene	1.20E-03	0.0303	0.1329
Fluoranthene	3.00E-06	7.58E-05	3.32E-04
Fluorene	2.80E-06	7.08E-05	3.10E-04
Formaldehyde	0.0750	1.90	8.30
Indeno(1,2,3-c,d)pyrene	1.80E-06	4.55E-05	1.99E-04
n-Hexane	1.80	45.51	199.32
Naphthalene	6.10E-04	0.0154	0.0675
Phenanthrene	1.70E-05	4.30E-04	1.88E-03
Pyrene	5.00E-06	1.26E-04	5.54E-04
Toluene	3.40E-03	0.0860	0.3765
Arsenic	2.00E-04	5.06E-03	2.21E-02
Beryllium	1.20E-05	3.03E-04	1.33E-03
Cadmium	1.10E-03	0.0278	0.1218
Chromium	1.40E-03	0.0354	0.1550
Cobalt	8.40E-05	2.12E-03	9.30E-03
Manganese	3.80E-04	9.61E-03	4.21E-02
Mercury	2.60E-04	6.57E-03	2.88E-02
Nickel	2.10E-03	0.0531	0.2325
Selenium	2.40E-05	6.07E-04	2.66E-03
Total	**1.89**	**47.73**	**209.05**

[d] U.S. EPA *AP-42* emission factor, 5th ed., Natural Gas Combustion, Tables 1.4-3 & 1.4-4.

[e] Potential Emissions (lb/hr) = Rated Capacity (MMBtu/hr) × Emission Factor (lb/MMBtu)

[f] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

Potential Greenhouse Gas (GHG) Calculated Emissions:

Pollutant	Uncontrolled Emission Factor[2]	Factor Units[2]	Emissions (lb/hr)	Emissions (TPY)	Global Warming Potential (GWP)[2]	CO2e Emissions (lb/hr)	CO2e Emissions (TPY)
CO_2	53.06	kg CO_2/MMBtu	2957.30	12952.99	1	2957.30	12952.99
CH_4	1.00E-03	kg CH_4/MMBtu	0.0557	0.2441	25	1.39	6.10
N_2O	1.00E-04	kg N_2O/MMBtu	5.57E-03	2.44E-02	298	1.66	7.27
TOTAL GHGs	--	--	**2957.36**	**12953.26**	--	--	--
TOTAL GHGs (CO_2e)	--	--	--	--	--	**2960.36**	**12966.37**

[1] Heat input based on fuel consumption and permitted HP.

[2] Based on 40 CFR 98 Subpart C, 98.33(a)(1)(i), Tier 1 Methodology, Equation C-1 and using source specific heat input.

GHG Emissions (lb/hr) = EF_{GHG} (kg/MMBtu) * 2.204623 lb/kg * Source Specific Heat Input (MMbtu/hr)

GHG Emissions (TPY) = GHG Emissions (lb/hr) * Annual Operating Hours (hr/yr) * 1 Ton/2000 lb

CO_2e Emissions (TPY) = Σ (GHG Emissions (tpy) * GWP)

Where:

EF_{GHG} = Fuel-specific default CO_2, CH_4, or N_2O emission factors from Table C-1 for CO_2 (Natural gas - Weighted U.S. Average) and Table C-2 for CH_4 and N_2O (Natural Gas) of 40 CFR Part 98, Subpart C (kg/MMBtu)

Heat Input = Btu/hp-hr x Site-rated hp x (1 MMBtu/1,000,000 Btu) = MMBtu/hr

GWP = Global Warming Potentials, 40 CFR 98, Subpart A, Table A-1

TITLE V RENEWAL
ANR PIPELINE COMPANY
COLD SPRINGS 12 COMPRESSOR STATION, MICHIGAN

App #202100068 & App #202100069

Source	EUCS12HEATER-C
Fuel Used:	Natural Gas
Minimum Higher Heating Value (HHV) (Btu/scf):	918
Maximum Higher Heating Value (HHV) (Btu/scf):	1,065
Heat Input (MMBtu/hr)	25.33
Minimum Hourly Fuel Consumption (scf/hr):	23,784
Maximum Hourly Fuel Consumption (scf/hr):	27,593
Control Device:	N/A
Stack Designation:	N/A

Summary of Operational Restrictions:

Annual Hours of Operation (hr/yr):	8,760
Annual Fuel Consumption (MMscf/yr):	241.7

Criteria Pollutant Emission Factors:

Pollutant	Emission Factor	Units	Reference
NOx	100.00	lb/MMscf	a
CO	84.00	lb/MMscf	a
VOC	5.50	lb/MMscf	a
PM (Filterable + Condensable)	7.60	lb/MMscf	a
PM10 (Filterable)	1.90	lb/MMscf	a
PM2.5 (Filterable)	1.90	lb/MMscf	a
SO2	0.6	lb/MMscf	a

[a] AP-42, 5th ed., Natural Gas Combustion, Tables 1.4-1 & 1.4-2.

Criteria Pollutant Calculated Emissions:

Pollutant	Emission Rate lb/hr	Calculation Methodology	Potential Emissions [c] ton/yr
NOx	2.76	b	12.09
CO	2.32	b	10.15
VOC	0.15	b	0.66
PM (Filterable + Condensable)	0.21	b	0.92
PM10 (Filterable)	0.052	b	0.230
PM2.5 (Filterable)	0.052	b	0.230
SO2	0.017	b	0.073

[b] Potential Emissions (lb/hr) = Maximum Hourly Fuel Consumption (scf/hr) × Emission Factor (lb/MMscf) x (1 MMscf/1,000,000 scf)
[c] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

HAP Calculated Emissions:

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Pollutant	Emission Factor (lb/MMBtu)[d]	Potential Emissions (lb/hr)[e]	Potential Emissions (tons/yr)[f]
2-Methylnaphthalene	2.40E-05	6.08E-04	2.66E-03
3-Methylcholanthrene	1.80E-06	4.56E-05	2.00E-04
7,12-Dimethylbenz(a)anthracene	1.60E-05	4.05E-04	1.78E-03
Acenaphthene	1.80E-06	4.56E-05	2.00E-04
Acenaphthylene	1.80E-06	4.56E-05	2.00E-04
Anthracene	2.40E-06	6.08E-05	2.66E-04
Benz(a)anthracene	1.80E-06	4.56E-05	2.00E-04
Benzene	2.10E-03	0.0532	0.2330
Benzo(a)pyrene	1.20E-06	3.04E-05	1.33E-04
Benzo(b)fluoranthene	1.80E-06	4.56E-05	2.00E-04
Benzo(g,h,i)perylene	1.20E-06	3.04E-05	1.33E-04
Benzo(k)fluoranthene	1.80E-06	4.56E-05	2.00E-04
Chrysene	1.80E-06	4.56E-05	2.00E-04
Dichlorobenzene	1.20E-03	0.0304	0.1331
Fluoranthene	3.00E-06	7.60E-05	3.33E-04
Fluorene	2.80E-06	7.09E-05	3.11E-04
Formaldehyde	0.0750	1.90	8.32
Indeno(1,2,3-c,d)pyrene	1.80E-06	4.56E-05	2.00E-04
n-Hexane	1.80	45.59	199.70
Naphthalene	6.10E-04	0.0155	0.0677
Phenanthrene	1.70E-05	4.31E-04	1.89E-03
Pyrene	5.00E-06	1.27E-04	5.55E-04
Toluene	3.40E-03	0.0861	0.3772
Arsenic	2.00E-04	5.07E-03	2.22E-02
Beryllium	1.20E-05	3.04E-04	1.33E-03
Cadmium	1.10E-03	0.0279	0.1220
Chromium	1.40E-03	0.0355	0.1553
Cobalt	8.40E-05	2.13E-03	9.32E-03
Manganese	3.80E-04	9.63E-03	4.22E-02
Mercury	2.60E-04	6.59E-03	2.88E-02
Nickel	2.10E-03	0.0532	0.2330
Selenium	2.40E-05	6.08E-04	2.66E-03
Total	**1.89**	**47.82**	**209.46**

[d] U.S. EPA *AP-42* emission factor, 5th ed., Natural Gas Combustion, Tables 1.4-3 & 1.4-4.

[e] Potential Emissions (lb/hr) = Rated Capacity (MMBtu/hr) × Emission Factor (lb/MMBtu)

[f] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

Potential Greenhouse Gas (GHG) Calculated Emissions:

Pollutant	Uncontrolled Emission Factor[2]	Factor Units[2]	Emissions (lb/hr)	Emissions (TPY)	Global Warming Potential (GWP)[2]	CO2e Emissions (lb/hr)	CO2e Emissions (TPY)
CO_2	53.06	kg CO_2/MMBtu	2963.03	12978.09	1	2963.03	12978.09
CH_4	1.00E-03	kg CH_4/MMBtu	0.0558	0.2446	25	1.40	6.11
N_2O	1.00E-04	kg N_2O/MMBtu	5.58E-03	2.45E-02	298	1.66	7.29
TOTAL GHGs	--	--	**2963.10**	**12978.36**	--	--	--
TOTAL GHGs (CO_2e)	--	--	--	--	--	**2966.10**	**12991.50**

[1] Heat input based on fuel consumption and permitted HP.

[2] Based on 40 CFR 98 Subpart C, 98.33(a)(1)(i), Tier 1 Methodology, Equation C-1 and using source specific heat input.

GHG Emissions (lb/hr) = EF_{GHG} (kg/MMBtu) * 2.204623 lb/kg * Source Specific Heat Input (MMbtu/hr)

GHG Emissions (TPY) = GHG Emissions (lb/hr) * Annual Operating Hours (hr/yr) * 1 Ton/2000 lb

CO_2e Emissions (TPY) = Σ (GHG Emissions (tpy) * GWP)

Where:

EF_{GHG} = Fuel-specific default CO_2, CH_4, or N_2O emission factors from Table C-1 for CO_2 (Natural gas - Weighted U.S. Average) and Table C-2 for CH_4 and N_2O (Natural Gas) of 40 CFR Part 98, Subpart C (kg/MMBtu)

Heat Input = Btu/hp-hr x Site-rated hp x (1 MMBtu/1,000,000 Btu) = MMBtu/hr

GWP = Global Warming Potentials, 40 CFR 98, Subpart A, Table A-1

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Source	EUCS12HEATER-D
Fuel Used:	Natural Gas
Minimum Higher Heating Value (HHV) (Btu/scf):	918
Maximum Higher Heating Value (HHV) (Btu/scf):	1,065
Heat Input (MMBtu/hr)	25.33
Minimum Hourly Fuel Consumption (scf/hr):	23,784
Maximum Hourly Fuel Consumption (scf/hr):	27,593
Control Device:	N/A
Stack Designation:	N/A

Summary of Operational Restrictions:

Annual Hours of Operation (hr/yr):	8,760
Annual Fuel Consumption (MMscf/yr):	241.7

Criteria Pollutant Emission Factors:

Pollutant	Emission Factor	Units	Reference
NOx	100.00	lb/MMscf	a
CO	84.00	lb/MMscf	a
VOC	5.50	lb/MMscf	a
PM (Filterable + Condensable)	7.60	lb/MMscf	a
PM10 (Filterable)	1.90	lb/MMscf	a
PM2.5 (Filterable)	1.90	lb/MMscf	a
SO2	0.6	lb/MMscf	a

[a] AP-42, 5th ed., Natural Gas Combustion, Tables 1.4-1 & 1.4-2.

Criteria Pollutant Calculated Emissions:

Pollutant	Emission Rate lb/hr	Calculation Methodology	Potential Emissions [c] ton/yr
NOx	2.76	b	12.09
CO	2.32	b	10.15
VOC	0.15	b	0.66
PM (Filterable + Condensable)	0.21	b	0.92
PM10 (Filterable)	0.052	b	0.230
PM2.5 (Filterable)	0.052	b	0.230
SO2	0.017	b	0.073

[b] Potential Emissions (lb/hr) = Maximum Hourly Fuel Consumption (scf/hr) × Emission Factor (lb/MMscf) x (1 MMscf/1,000,000 scf)
[c] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

HAP Calculated Emissions:

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Pollutant	Emission Factor (lb/MMBtu)[d]	Potential Emissions (lb/hr)[e]	Potential Emissions (tons/yr)[f]
2-Methylnaphthalene	2.40E-05	6.08E-04	2.66E-03
3-Methylcholanthrene	1.80E-06	4.56E-05	2.00E-04
7,12-Dimethylbenz(a)anthracene	1.60E-05	4.05E-04	1.78E-03
Acenaphthene	1.80E-06	4.56E-05	2.00E-04
Acenaphthylene	1.80E-06	4.56E-05	2.00E-04
Anthracene	2.40E-06	6.08E-05	2.66E-04
Benz(a)anthracene	1.80E-06	4.56E-05	2.00E-04
Benzene	2.10E-03	0.0532	0.2330
Benzo(a)pyrene	1.20E-06	3.04E-05	1.33E-04
Benzo(b)fluoranthene	1.80E-06	4.56E-05	2.00E-04
Benzo(g,h,i)perylene	1.20E-06	3.04E-05	1.33E-04
Benzo(k)fluoranthene	1.80E-06	4.56E-05	2.00E-04
Chrysene	1.80E-06	4.56E-05	2.00E-04
Dichlorobenzene	1.20E-03	0.0304	0.1331
Fluoranthene	3.00E-06	7.60E-05	3.33E-04
Fluorene	2.80E-06	7.09E-05	3.11E-04
Formaldehyde	0.0750	1.90	8.32
Indeno(1,2,3-c,d)pyrene	1.80E-06	4.56E-05	2.00E-04
n-Hexane	1.80	45.59	199.70
Naphthalene	6.10E-04	0.0155	0.0677
Phenanthrene	1.70E-05	4.31E-04	1.89E-03
Pyrene	5.00E-06	1.27E-04	5.55E-04
Toluene	3.40E-03	0.0861	0.3772
Arsenic	2.00E-04	5.07E-03	2.22E-02
Beryllium	1.20E-05	3.04E-04	1.33E-03
Cadmium	1.10E-03	0.0279	0.1220
Chromium	1.40E-03	0.0355	0.1553
Cobalt	8.40E-05	2.13E-03	9.32E-03
Manganese	3.80E-04	9.63E-03	4.22E-02
Mercury	2.60E-04	6.59E-03	2.88E-02
Nickel	2.10E-03	0.0532	0.2330
Selenium	2.40E-05	6.08E-04	2.66E-03
Total	**1.89**	**47.82**	**209.46**

[d] U.S. EPA *AP-42* emission factor, 5th ed., Natural Gas Combustion, Tables 1.4-3 & 1.4-4.

[e] Potential Emissions (lb/hr) = Rated Capacity (MMBtu/hr) × Emission Factor (lb/MMBtu)

[f] Potential Emissions (tons/yr) = $(lb/hr)_{Potential}$ × (8,760 hr/yr) × (1 ton/2,000 lb).

Potential Greenhouse Gas (GHG) Calculated Emissions:

Pollutant	Uncontrolled Emission Factor[2]	Factor Units[2]	Emissions (lb/hr)	Emissions (TPY)	Global Warming Potential (GWP)[2]	CO2e Emissions (lb/hr)	CO2e Emissions (TPY)
CO_2	53.06	kg CO_2/MMBtu	2963.03	12978.09	1	2963.03	12978.09
CH_4	1.00E-03	kg CH_4/MMBtu	0.0558	0.2446	25	1.40	6.11
N_2O	1.00E-04	kg N_2O/MMBtu	5.58E-03	2.45E-02	298	1.66	7.29
TOTAL GHGs	--	--	**2963.10**	**12978.36**	--	--	--
TOTAL GHGs (CO_2e)	--	--	--	--	--	**2966.10**	**12991.50**

[1] Heat input based on fuel consumption and permitted HP.

[2] Based on 40 CFR 98 Subpart C, 98.33(a)(1)(i), Tier 1 Methodology, Equation C-1 and using source specific heat input.

GHG Emissions (lb/hr) = EF_{GHG} (kg/MMBtu) * 2.204623 lb/kg * Source Specific Heat Input (MMbtu/hr)

GHG Emissions (TPY) = GHG Emissions (lb/hr) * Annual Operating Hours (hr/yr) * 1 Ton/2000 lb

CO_2e Emissions (TPY) = Σ (GHG Emissions (tpy) * GWP)

Where:

EF_{GHG} = Fuel-specific default CO_2, CH_4, or N_2O emission factors from Table C-1 for CO_2 (Natural gas - Weighted U.S. Average) and Table C-2 for CH_4 and N_2O (Natural Gas) of 40 CFR Part 98, Subpart C (kg/MMBtu)

Heat Input = Btu/hp-hr x Site-rated hp x (1 MMBtu/1,000,000 Btu) = MMBtu/hr

GWP = Global Warming Potentials, 40 CFR 98, Subpart A, Table A-1

Attachment C

Permit Markup

Michigan Department of Environmental Quality
Air Quality Division

EFFECTIVE DATE: July 23, 2014

REVISION DATE: November 21, 2014

ISSUED TO

ANR Storage Company

State Registration Number (SRN): B7198

LOCATED AT

10000 Pflum Road, Mancelona, Kalkaska County, Michigan 49659

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B7198-2014a

Expiration Date: July 23, 2019

Administratively Complete ROP Renewal Application Due Between
January 23, 2018 and January 23, 2019

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B7198-2014a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

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Janis Ransom, Cadillac District Supervisor

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AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environmental Quality (MDEQ) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a source-wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements will be identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined or subsumed, or is state only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

SECTION 1 – COLD SPRINGS 12 COMPRESSOR STATION

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies

of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following: **(R 336.1301(1))**
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA. **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

    d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.

37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. [2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. [2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. [2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. [2] **(R 336.1201(4))**

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).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU CS12GLYDHY	The glycol dehydration system operates in two modes (glycol injection and glycol absorption) to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydrator has a condenser and thermal oxidizer as control devices.	01/01/89	NA
EU CS12HHH	40 CFR, Part 63, Subpart HHH establishes national emission limitations and operating limitations for natural gas transmission and storage facilities that are major sources of HAP emissions. The rule affects facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final user. Subpart HHH is applicable to EU CS12GLYDHY. The glycol dehydrator has the option of using a condenser and/or thermal oxidizer to comply with this regulation.	10/15/15 Compliance date	NA
EUCS12HEATER-C	A natural gas fired Gastech 25.33 MMBtu/hr indirect gas withdrawal heater		FG CS12DDDDD>10MMBtu/HR
EUCS12HEATER-D	A natural gas fired Gastech 25.33 MMBtu/hr indirect gas withdrawal heater		FG CS12DDDDD>10MMBtu/HR
EU CS12BOILER	A natural gas-fired Cleaver-Brooks 2.51 MMBtu/hr Boiler used for building and comfort heating throughout the facility. The emission unit does not have a control device.	Before 6/4/2010	FG CS12DDDDD<10MMBtu/hr

Deleted: EU CS12HEATER-A

Deleted: A natural gas-fired Sivalls 7.5 MMBtu/hr indirect gas withdrawal heater. ¶
¶
The emission unit does not have a control device.

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Deleted: EU CS12HEATER-B

Deleted: A natural gas-fired Sivalls 7.5 MMBtu/hr indirect gas withdrawal heater. ¶
¶
The emission unit does not have a control device.

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ANR STORAGE COMPANY
Section 1 – Cold Springs 12 Compressor Station

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU CS12CMPR-A	A natural gas-fired, 3,750, HP 4-stroke lean burn Ingersoll Rand 410 KVR IC compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal. The emission unit does not have a control device.	01/01/1980	FG CS12CMPRS
EU CS12CMPR-B	A natural gas-fired, 3,750, HP 4-stroke lean burn Ingersoll Rand 410 KVR IC compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal. The emission unit does not have a control device.	01/01/1980	FG CS12CMPRS
EU CS12CMPR-C	A natural gas-fired, 3,750, HP 4-stroke lean burn Ingersoll Rand 410 KVR IC compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal. The emission unit does not have a control device.	01/01/1980	FG CS12CMPRS
EU CS12EMRGEN-B	A 580 horsepower 4-stroke rich burn Waukesha VHP5108G emergency generator. The emission unit does not have a control device.	1979	FG CS12ZZZZ

Deleted: EU CS12EMRGEN-A ... [2]

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]		EU CS12GLYDHY	V.1, VI.2, VI.3, VI.4	**R 336.1702(a)**
3.	VOC	15.7 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)**

II. MATERIAL LIMIT(S)

NA

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))**

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	17[1]	**R 336.1901**
2. SV-010B (Condenser)	3[1]	17[1]	**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).

EU CS12HHH
EMISSION UNIT CONDITIONS

DESCRIPTION

One glycol dehydration system operates in two modes (glycol injection and glycol absorption) to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydration system meets the definition in 40 CFR 63.1271 and was constructed prior to August 23, 2011 and must attain compliance with the requirements in 40 CFR, Part 63, Subpart HHH by October 15, 2015.

Emission Units: EUCS12GLYDHY

POLLUTION CONTROL EQUIPMENT Condenser and/or Thermal Oxidizer.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. BTEX	Calculated using the equation in Appendix 7A	Annual	EU CS12GLYDHY	V.2, V.4, V.5, VI.9	**40 CFR 63.1275(b)(1)(iii)**

See Appendix 7A

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The process vent from EU CS12GLYDHY shall be vented to a control device or a combination of control devices through a closed-vent system. **(40 CFR 63.1275(b)(1)(iii)(A))**

2. The control device(s) shall be one of those specified below and must be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(f)(1))**
   a. A thermal oxidizer that reduces the concentration of BTEX to meet the emission limit in I.1, or the TOC or total HAP concentration in the exhaust gases at the outlet of the oxidizer is reduced to a level equal to or less than 20 ppmv on a dry basis corrected to 3 percent oxygen.
   b. A condenser or other non-destructive control device that is designed and operated to reduce the mass content of BTEX in the gases vented by 95 percent.

3. The permittee shall control HAP emissions from each GCG separator (flash tank) vent unless BTEX emissions from the reboiler vent and the flash tank are reduced to a level less than the limit in Condition I.1. **(40 CFR 63.1275(c)(3))**

4. The permittee shall operate and maintain EU CS12HHH, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1274(h))**

5. The permittee shall operate each control device in accordance with the requirements specified below: **(40 CFR 63.1281(f)(2))**

a. Each control device used to comply with this subpart shall be operating at all times. More than one unit may be vented to a control device.
b. For each control device monitored in accordance with the requirements of Conditions VI.7 - 12, the permittee shall demonstrate compliance according to the requirements of VI.2 (§ 63.1282(e)).

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6. When using a condenser to demonstrate continuous compliance with emission limits, the control device shall be operated at a maximum operating temperature established in accordance with the requirements of VI.8. When using a thermal oxidizer to demonstrate continuous compliance with emission limits the control device shall be operated at the minimum operating temperature established in accordance with the requirements of VI.8 or a minimum of 1400°F. **(40 CFR 63.1282(e)(1))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The closed vent system shall be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(c), 40 CFR 63.1283(c)(2)(iii))**
   a. The closed-vent system shall route all gases, vapors, and fumes emitted from the material in and emission unit to a control device that meets the requirements specified in Condition III.2.
   b. The closed-vent system shall be designed and operated with no detectable emissions.
   c. Any bypass devices in the closed-vent system that could divert emissions from entering the control device shall be equipped with a flow indicator at the inlet to the bypass device that takes readings every 15 minutes, and that sounds an alarm when the bypass device is open; or the bypass device valve at the inlet to the bypass device shall be secured using a car-seal or lock and key.

2. Each continuous parameter monitoring system (CPMS) shall meet the following specifications and requirements: **(40 CFR 63.1283(d)(1))**
   a. Each CPMS shall measure data values at least once every hour and record either:
      i Each measured data value; or
      ii Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

3. The permittee shall install a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified below. **(40 CFR 63.1283(d)(3))**
   a. For a thermal oxidizer, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature
   b. For a condenser, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

V. TESTING/SAMPLING

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

1. Determination of the actual flow rate of natural gas to EU CS12GLYDHY shall be made using either of the following procedures: **(40 CFR 63.1282(a)(1))**
   a. Install and operate a monitoring instrument that directly measures natural gas flow rate to EU CS12GLYDHY with an accuracy of ± 2 percent or better. The annual natural gas flow rate shall be converted to a daily average by dividing the annual flow rate by the number of days per year each EU processed natural gas.
   b. Document to the AQD's satisfaction, the actual annual average natural gas flow rate to EU CS12GLYDHY.

2. Determination of the actual average BTEX emissions from EU CS12GLYDHY with condenser and/or thermal oxidizer control device shall be made using the following procedure: **(40 CFR 63.1282(a)(2))**
   a. Use GRI-GLYCalc™, Version 3.0 or higher. Inputs to the model shall be representative of actual operating conditions of each glycol dehydration unit.

3. The Permittee shall perform "no detectable emissions" testing for closed vent systems using the test methods and procedures specified in 40 CFR 63.1282(b). **(40 CFR 63.1282(b))**

4. If the permittee chooses to conduct a performance test to demonstrate that a control device meets the requirements of III.2 (40 CFR 1281(f)(1)) the permittee shall conduct emissions testing for compliance with the BTEX emission limit calculated using Equation 1 or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement using the following test methods and procedures: **(40 CFR 63.1282(d)(3)**
   a. Method 1 or 1A, 40 CFR, Part 60, Appendix A, as appropriate, shall be used for selection of the sampling sites. The sampling site shall be located at the outlet of the combustion device.
   b. The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR, Part 60, Appendix A, as appropriate.
   c. To determine compliance with the BTEX emission limit or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement, the permittee shall use one of the following methods: Method 18, 40 CFR, Part60, Appendix A; ASTM D64200-99 (Reapproved 2004); or any other method or data that have been validated according to the applicable procedures in Method 301, 40 CFR, Part 63, Appendix A.
   d. The permittee shall conduct performance tests according to the following schedule:
      i. An initial performance test shall be conducted no later than October 15, 2015.
      ii. The first periodic performance test shall be conducted not later than 60 months after the initial performance test. Subsequent periodic performance tests shall be conducted at intervals no longer than 60 months following the previous periodic performance test or whenever a source desires to establish a new operating limit. Combustion control devices meeting either of the following criteria are not required to conduct periodic performance tests;
         A. A control device whose model is tested under, and meets the criteria of manufacturers performance test in 40 CFR 63.1282(g).
         B. A combustion control device demonstrating during the performance test that combustion zone temperature is an indicator of destruction efficiency and operates at a minimum temperature of 1400 degrees F.

5. As an alternative to the performance test referenced in V.4 the permittee may elect to use the procedures documented in the GRI report entitled "Atmospheric Rich/Lean method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1282(d)(5))**

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 maintain records of the annual facility natural gas throughput each year. **(40 CFR 63.1270(a)(3))**

2. The permittee shall continuously monitor and record the temperature on the thermal oxidizer or condenser and calculate the daily average temperature for each operating day. **(40 CFR 63.1282(e), 40 CFR 63.1283(d)(4))**
   a. Establish a site specific maximum (condenser) or minimum (thermal oxidizer) temperature to define the conditions at which the control device must be operated to continuously achieve compliance with the emission limit.
   b. Calculate the daily average of the temperature readings in accordance with Condition VI.7.
   c. Compliance is achieved when the daily average of the temperature readings calculated under 2.b. is either equal to or greater than the minimum or equal to or less than the maximum monitoring value established under 2.a.

3. When using a condenser as the control device the permittee may demonstrate compliance with BTEX emission reductions by complying with the following requirements: **(40 CFR 63.1282(f))**
   a. The permittee shall establish a site-specific condenser performance curve according to the procedures specified in Condition VI.9.
   b. The permittee must calculate the daily average condenser outlet temperature in accordance with Condition VI.9.
   c. The permittee shall determine the condenser efficiency for the current operating day using the daily average condenser outlet temperature and the condenser performance curve.

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d. At the end of each operating day the permittee shall calculate the 30-day average BTEX emission reduction from the condenser efficiencies for the preceding 30 operating days.
e. Compliance is achieved if the average BTEX emission reduction is equal to or greater than the minimum percent reduction established in Condition VI.9.

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4. For each closed-vent system, the permittee shall comply with the following requirements: **(40 CFR 63.1283(c)(2-4))**
   a. Except for parts of the closed-vent system or cover that are designated unsafe to inspect or difficult to inspect, each closed-vent system and each bypass device shall be inspected according to the procedures specified below according the following schedule:
      i. For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange):
         A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
         B. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices.
      ii. For closed-vent system components other than those specified in VI.5.a.i above:
         A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
         B. Conduct annual inspections to demonstrate that the components or connections operate with no detectable emissions.
         C. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices.
      iii. For each bypass device, except low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices, the permittee shall either:
         A. At the inlet to the bypass device that could divert the steam away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or
         B. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.
   b. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, except as provided in VI.4.c.

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      i A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
      ii Repair shall be completed no later than 15 calendar days after the leak is detected.
   c. Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in § 63.1271, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.

5. Any parts of the closed-vent system or cover that are designated, as described below, as unsafe to inspect are exempt from the inspection requirements of Condition VI.4 if: **(40 CFR 63.1283(c)(5))**

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   a. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with Condition VI.5.a.i or ii.
   b. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

6. Any parts of the closed-vent system or cover that are designated, as described below, as difficult to inspect are exempt from the inspection requirements of Condition VI.4 if: **(40 CFR 63.1283(c)(6))**

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   a. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

   b. The permittee has a written plan that requires inspection of the equipment at least once every 5 years.

7. Using the data recorded by the monitoring system, except for inlet gas flow rate, the permittee must calculate the daily average value for each monitored operating parameter for each operating day. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average. **(40 CFR 63.1283(d)(4))**

8. For the control devices used to comply with 40 CFR, Part 63, Subpart HHH, the permittee shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the emission limits in Section I of FGMACTHHH. Each minimum or maximum operating parameter value shall be established as follows: **(40 CFR 63.1283(d)(5)(i))**
   a. If the permittee conducts performance tests to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by a condenser design analysis or control device manufacturer's recommendations or a combination of both.
   b. If the permittee uses a condenser design analysis to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value shall be established based on the condenser design analysis and may be supplemented by the condenser manufacturer's recommendations.
   c. If the permittee operates a control device where the performance test requirement was met under manufacturers' performance test to demonstrate that the control device achieves the applicable performance requirements, then the maximum inlet gas flow rate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.

9. When using condensers as the control device the permittee shall also establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established using the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, Version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1283(d)(5)(ii))**

10. A deviation for a control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified below being met. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified below, then a single excursion is determined to have occurred for the control device for that operating day. **(40 CFR 63.1283(d)(6)(i-iii))**
    a. When the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter.
    b. When the 30-day average condenser efficiency calculated according to the requirements of Condition VI.3.d is less than the identified 30-day required percent reduction.
    c. When the monitoring data are not available for at least 75 percent of the operating hours in a day.

11. A deviation occurs for a closed-vent system containing one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device when: **(40 CFR 63.1283(d)(6)(iv))**
    a. The flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.
    b. If the seal or closure mechanism has been broken, the bypass line valve position has a changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.

12. For each deviation, the permittee shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard. **(40 CFR 63.1283(d)(7))**

13. Nothing in Conditions VI.7 through VI.12 shall be construed to allow or excuse a monitoring parameter deviation caused by any activity that violates other applicable provisions of this subpart. **(40 CFR 63.1283(d)(9))**

14. The permittee shall maintain the records specified in 40 CFR 63.10(b)(2). **(40 CFR 63.1284(b)(2))**

15. The permittee shall maintain the following records: **(40 CFR 63.1284(b)(4), 40 CFR 63.1284(g))**
    a. Continuous records of the equipment operating parameters specified to be monitored in Conditions VI.8-10.
    b. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in Condition VI.7.
    c. For condensers using reduction efficiency for compliance, records of the annual 30-day rolling average condenser efficiency determined in Condition VI.3.d shall be kept in addition to the daily averages.
    d. The following records for a control device whose model is tested under the manufacturers' performance test:
        i All visible emission readings and flow rate calculations made during the compliance determination
        ii All hourly records and other recorded periods when the pilot flame is absent.
    e. Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.
    f. Where a seal or closure mechanism is used to comply with the closed vent bypass, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

16. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with Condition VI.5, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(5))**

17. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with Condition VI.6, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(6))**

18. The permittee shall maintain the following records for each inspection conducted in accordance with Condition VI.4 during which a leak or defect is detected. **(40 CFR 63.1284(b)(7))**
    g. The instrument identification numbers, operator name or initials, and identification of the equipment.
    h. The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.
    i. Maximum instrument reading measured by the method specified in Condition V.3 after the leak or defect is successfully repaired or determined to be non-repairable.
    j. "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.
    k. The name, initials, or other form of identification of the permittee (or designee) whose decision it was that repair could not be affected without a shutdown.
    l. The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.
    m. Dates of shutdowns that occur while the equipment is unrepaired.
    n. The date of successful repair of the leak or defect.

19. For each inspection conducted in accordance with Condition VI.4 during which no leaks or defects are detected, the permittee shall maintain a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected. **(40 CFR 63.1284(b)(8))**

20. The permittee shall maintain records of the occurrence and duration of each malfunction of process equipment or the air pollution control equipment and monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with Condition III.4 including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.1284(f))**

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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 the notification of the planned date of a performance test and site–specific test plan at least 60 days before the test. **(40 CFR 63.1285(b)(3))**

5. The permittee shall submit a Notification of Compliance Status Report as required under § 63.9(h) within 180 days after October 15, 2015. In addition to the information required under § 63.9(h) the Notification of Compliance Status Report shall include the information specified in paragraphs 5.a. through l. of this section. If an owner or operator submits the required information at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information. **(40 CFR 63.1285(d))**
   a. If a closed-vent system and a control device other than a flare are used to comply with § 63.1274, the owner or operator shall submit the information in Condition 5.a.iii and the information in either paragraph 5.a.i. or ii.
      i. The condenser design analysis documentation specified in § 63.1282(d)(4) if the owner or operator elects to prepare a design analysis; or
      ii. If the owner or operator is required to conduct a performance test, the performance test results including the information specified in Condition 5.a.ii.A and B Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.1282(d)(3), and that the test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under § 63.1282(g), an electronic copy of the performance test results shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following Web site: *epa.gov/air quality/oil and gas*.
         A. The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in § 63.1282(d)(3); and
         B. The value of the monitored parameters specified in § 63.1283(d), or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.
      iii. The results of the closed-vent system initial inspections performed according to the requirements in § 63.1283(c)(2)(i) and (ii).
   b. The owner or operator shall submit one complete test report for each test method used for a particular source.
      i. For additional tests performed using the same test method, the results specified in Condition 5.a.ii shall be submitted, but a complete test report is not required.
      ii. A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.
   c. For each control device other than a flare used to meet the requirements of § 63.1274, the owner or operator shall submit the information specified in Condition 5.d.i. through iv for each operating parameter required to be monitored in accordance with the requirements of § 63.1283(d).
      i. The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control

device must be operated to continuously achieve the applicable performance requirements of § 63.1281(d)(1) or (e)(3)(ii).

ii. An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in § 63.1283(d)(5). This explanation shall include any data and calculations used to develop the value, and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of § 63.1281(d)(1), (e)(3)(ii), or (f)(1).

iii. A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

d. Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.

e. The owner or operator shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under 40 CFR, Part 63, Subpart HHH. Each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.

f. The owner or operator shall submit an analysis demonstrating whether an affected source is a major source using the maximum throughput calculated according to § 63.1270(a).

g. The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.

h. If the owner or operator installs a combustion control device model tested under the manufacturer's performance test procedures in § 63.1282(g), the Notification of Compliance Status Report shall include the data listed under § 63.1282(g)(8).

i. For each combustion control device model tested under § 63.1282(g), the information listed in paragraphs 5.i.i. through vi of this section.

i. Name, address and telephone number of the control device manufacturer.
ii. Control device model number.
iii. Control device serial number.
iv. Date the model of control device was tested by the manufacturer.
v. Manufacturer's HAP destruction efficiency rating.
vi. Control device operating parameters, maximum allowable inlet gas flow rate.

6. The permittee shall prepare Periodic Reports in accordance with a. and b. below and submit them to the Administrator. **(40 CFR 63.1285(e))**

a. The permittee shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. The report shall include certification by a responsible official of truth, accuracy, and completeness.

b. The permittee shall include the following information and any other information as applicable in §63.1285(e)(2).

i. A description of all deviations as defined in Conditions VI.12-14 that have occurred during the 6-month reporting period, and the information described in §63.1285(e)(2)(ii).
ii. For each inspection conducted in accordance with Condition VI.5 during which a leak or defect is detected, the records described in Condition VI.21 must be included in the next Periodic Report.
iii. For each closed-vent system with a bypass line, records required under Condition VI.18.e and f.
iv. A statement identifying if there were no deviations during the reporting period.
v. Any change in compliance methods as described in §63.1282(e).
vi. The results of any periodic test conducted during the reporting period.

7. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report, whichever is sooner. The report shall include: **(40 CFR 63.1285(f))**

a. A brief description of the process change;
b. A description of any modification to standard procedures or quality assurance procedures;
c. Revisions to any of the information reported in the original Notification of Compliance Status Report under Condition VII.5

d. Information required by the Notification of Compliance Status Report under Condition VII.5 for changes involving the addition of processes or equipment.

8. Within 60 days after the date of completing a performance test (defined in § 63.2) you must submit the results of the performance tests to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. All reports required by this subpart not subject to the above electronic reporting requirements must be sent to the Administrator at the appropriate address. The Administrator may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports in paper format. **(40 CFR 63.1285(g))**

9. The permittee shall notify the AQD Technical Programs Unite Supervisor and the district Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall determine major source status using the maximum annual facility natural gas throughput calculated according to 40 CFR 63.1270(a)(1)(i) through (a)(1)(iv). As an alternative to calculating the maximum natural gas throughput, the owner or operator of a new or existing source may use the facility design maximum natural gas throughput to estimate the maximum potential emissions. **(40 CFR 63.1270(a)(1))**

2. The permittee shall determine the maximum values for other parameters used to calculate potential emissions as the maximum over the same period for which maximum throughput is determined. These parameters shall be based on an annual average or the highest single measured value. For estimating maximum potential emissions from glycol dehydration units, the glycol circulation rate used in the calculation shall be the unit's maximum rate under its physical and operational design consistent with the definition of potential to emit in 40 CFR 63.2. **(40 CFR 63.1270(a)(4))**

3. A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements. Each CPMS must be installed, calibrated, operated,

and maintained in accordance with the procedures in your approved site-specific monitoring plan. The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified below and in your site-specific monitoring plan. **(40 CFR 63.1283(d)(1)(ii-iv))**

a. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
b. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
c. Equipment performance checks, system accuracy audits, or other audit procedures;
d. Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1) and (c)(3);

e. Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).
f. The permittee must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months.
g. The permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

4. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart HHH, for Natural Gas Transmission and Storage Facilities by October 15, 2015. **(40 CFR, Part 63, Subparts A and HHH)**

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).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG CS12DDDDD>10MMBtu/hr	Emission Units greater than 10 MMBtu/hr subject to 40 CFR, Part 63, Subpart DDDDD.	EUCS12HEATER-C, EUCS12HEATER-D
FG CS12DDDDD<10MMBtu/hr	Emission Units less than 10 MMBtu/hr subject to 40 CFR, Part 63, Subpart DDDDD.	EU CS12BOILER
FG CS12CMPRS	Three natural gas-fired, 3,750, HP 4-stroke lean burn Ingersoll Rand 410 KVR IC compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal.	EU CS12CMPR-A, EU CS12CMPR-B, EU CS12CMPR-C
FG CS12ZZZZ	One 580 horsepower 4-stroke rich burn Waukesha VHP5108G emergency generator. Emission unit subject to 40 CFR, Part 63, Subpart ZZZZ.	EU CS12EMRGEN-B

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EU CS12HEATER-B,

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FG CS12DDDDD<10MMBtu/hr
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for existing Gas 1, (Natural Gas only) for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in 40 CFR 63.6(i).

Emission Units:

Less than 5 MMBtu/hr	EU CS12BOILER (2.51 MMBtu/hr)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(l))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

2. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1. **(40 CFR 63.7500(b))**

3. The permittee must, for boilers or process heaters with a heat input capacity of less than or equal to 5 MMBTU/hr, conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. The permittee shall conduct the 5-year tune-up of each boiler or process heater as specified below. **(40 CFR 63.7500(d) or (e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**

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Requirements for 2 new process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.¶

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The collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within the units designed to burn gas 1 fuel subcategory as defined in 40 CFR 63.7575. At the time of permit renewal:¶

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EU CS12HEATER-A (7.5 MMBtu/hr), EU CS12HEATER-B (7.5 MMBtu/hr) ... [3]

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The permittee must, for boilers or process heaters installed after June 4, 2010, complete an initial tune-up as specified in SC III.5 by no later than DATE. **(40 CFR 63.7510(g))...**

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a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

4. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**

5. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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<#>The permittee must complete an initial tune-up of each emission unit installed after June 4, 2010 that has a continuous oxygen trim system as specified in SC III.5 by no later than DATE. **(40 CFR 63.7510(g))**¶

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<#>Complete a tune-up every 5 years (61 months) for boilers/process heaters less than or equal to 5 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**¶
<#>Complete a tune-up every 2 years (25 months) for boilers greater than 5 million Btu per hour and less than 10 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**¶
<#>Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**¶
<#>Follow the procedures described in SC IX 3.a through 3.f for all initial and subsequent tune ups. ¶
(40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)¶

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**

2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**

3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
   a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
   b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
   c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**

6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(a), (b), and (c))**

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. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.6, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct a biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC III.3.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC III.3.a, and not subject to emission limits or

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2. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(a), (b), and (c))**¶
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operating limits, the permittee may submit only a biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report. **(40 CFR 63.7550(b))**

a. When submitting a 5-year compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 5 years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**

b. The first 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**

c. 5-year compliance reports must cover the applicable 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**

d. 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

5. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**

a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**

b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**

c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**

d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**

6. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**

a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must be in compliance with the applicable work practice standards. **(40 CFR 63.7505(a))**

2. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up within 30 days of startup by following the procedures described in SC IX 3.a through 3.f. **(40 CFR 63.7515(g))**

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(40 CFR 63.7550(b)(1))

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3. The permittee must demonstrate continuous compliance with the tune-up requirement by completing the following: **(40 CFR 63.7540(a))**
   a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
   d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
   e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
   f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
      i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
      ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
      iii. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

4. If the boiler or process heater has a heat input capacity of less than or equal to 5 million Btu per hour, the permittee may delay the burner inspection specified in SC IX 3.a until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**

5. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

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).

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FG CS12DDDDD>10MMBtu/hr
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for 2 new process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.

Emission Units:

Equal to or greater than 10 MMBtu/hr	EUCS12HEATER-C (25.33 MMBtu/hr), EUCS12HEATER-D (25.33 MMBtu/hr)

Commented [MMC6]: Update EU info.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(l))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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2. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1. **(40 CFR 63.7500(b))**

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3. The permittee must, for boilers or process heaters installed after June 4, 2010, complete an initial tune-up as specified in SC III.5 by no later than one year from installation. **(40 CFR 63.7510(g))**

4. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13 months after the previous tune-up. **(40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)**

   a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**

   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**

   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**

   d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**

   e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

5. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**

6. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**

2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**

3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
   a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
   b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
   c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**

6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(a), (b), and (c))**

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))**

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4. The permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source. **(40 CFR 63.7545(c))**

5. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.6, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below.
   a. When submitting an annual compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 1 year, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
   b. The first annual compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
   c. Annual compliance reports must cover the applicable 1-year period from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
   d. Annual compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

6. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**
   a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
   b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
   c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
   d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
   e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii)**

7. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**
   b. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

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See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

ANR STORAGE COMPANY
Section 1 – Cold Springs 12 Compressor Station

1. The permittee must be in compliance with the applicable work practice standards. **(40 CFR 63.7505(a))**

2. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up within 30 days of startup by following the procedures described in SC IX 3.a through 3.f. **(40 CFR 63.7515(g))**

3. The permittee must demonstrate continuous compliance with the tune-up requirement by completing the following: **(40 CFR 63.7540(a))**
   a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
   d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
   e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
   f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
      iv. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
      v. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
      vi. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

4. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

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).

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FG CS12CMPRS
FLEXIBLE GROUP CONDITIONS

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EU CS12HEATER-A (7.5 MMBtu/hr), EU CS12HEATER-B (7.5 MMBtu/hr), and EU CS12BOILER (2.51 MMBtu/hr) are subject to 40 CFR, Part 63, Subpart DDDDD National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. ¶
¶
Emission Unit: ¶
EU CS12HEATER-A, EU CS12HEATER-B and EU CS12BOILER. ¶
¶
POLLUTION CONTROL EQUIPMENT NA¶
¶
¶
I. EMISSION LIMIT(S)¶
¶
Pollutant ... [4]

DESCRIPTION

Three natural gas-fired, 3,750, HP 4-stroke lean burn Ingersoll Rand 410 KVR IC compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal.

Emission Units: EU CS12CMPR-A, EU CS12CMPR-B, EU CS12CMPR-C

POLLUTION CONTROL EQUIPMENT: Clean burn/lean burn system.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	99.2 pph[2]	Test Protocol*	EU CS12CMPR-A, EU CS12CMPR-B, EU CS12CMPR-C (The limit applies to each individual compressor engine.)	V.1, VI.3, VI.4	**40 CFR 52.21, R 336.2802**

*Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The natural gas used as fuel for the compressor engines shall not contain more than 20 grains of total sulfur per 100 cubic feet of natural gas.[2] **(R 336.2803. R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall operate the FG CS12CMPRS per the AQD approved malfunction abatement plan. **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The NOx emission rate from the compressor engines shall not exceed 12 grams per brake horsepower hour at 100 percent speed and 100 percent torque.[2] **(40 CFR 52.21, R 336.1802)**

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 conduct a stack test of NOx emissions on EU CS12CMPR-A, EU CS12CMPR-B, and EU CS12CMPR-C. **(R 336.1213(3)(a))** All testing, sampling analytical and calibration procedures used for any stack test program shall be performed in accordance with 40 CFR, Part 60, Appendix A, Methods 2, 3A, and 7E, or other acceptable reference methods approved by the AQD. **(R 336.1213(3)(a))**

3. Once every five years the permittee shall demonstrate compliance of the grains of total sulfur in the compressor engine fuel by testing the fuel. **(R 336.1119(i) and (dd))**

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 record the total fuel consumption for each compressor engine in FG CS12CMPRS for each calendar month. **(R 336.1213(3)(b))**

2. The permittee shall record the total engine hours of operation for each compressor engine in FG CS12CMPRS for each calendar month. **(R 336.1213(3)(b))**

3. The permittee shall calculate and record the NOx emissions in pounds per hour for each compressor engine in FG CS12CMPRS using the equation in Appendix 7B, or an alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data. The permittee may calculate NOx emissions from each engine in FG CS12CMPRS by using an emission factor based on stack tests of the compressor engines. The emissions calculations shall be available to the AQD upon request by 15th of the following month. **(R 336.1213)**

4. The permittee shall recalculate the emission factor following the verification of emission rates from stack testing required in V. Testing. **(R 336.1213(3)(a))**

See Appendix 7B

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 two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing.[2] **(R 336.12001(3))**

5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.[2] **(R 336.2001(5))**

7. The permittee shall submit a complete analysis plan to the AQD District Supervisor for approval at least 30 days prior to the anticipated analysis date. **(R 336.1119(i) and (dd))**

8. 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 test. **(R 336.1119(i) and (dd))**

See Appendix 8

ANR STORAGE COMPANY
Section 1 – Cold Springs 12 Compressor Station

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. SV001 (EU CS12CMPR-A)	30[2]	49.2[2]	**40 CFR 52.21, R 336.2802**
2. SV002 (EU CS12CMPR-B)	30[2]	49.2[2]	**40 CFR 52.21, R 336.2802**
3. SV003 (EU CS12CMPR-C)	30[2]	49.2[2]	**40 CFR 52.21, R 336.2802**

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain a malfunction abatement plan approved by the AQD District Supervisor in accordance with Rule 336.1911 for FG CS12CMPRS.[2] **(R 336.1911)**

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)

FG CS12ZZZZ EMERGENCY GENERATOR FLEXIBLE GROUP CONDITIONS

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DESCRIPTION:

One 580 horsepower 4-stroke rich burn Waukesha VHP5108G emergency generator. The emission unit is subject to 40 CFR, Part 63, Subpart ZZZZ.

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Emission Units: EU CS12EMRGEN-B

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POLLUTION CONTROL EQUIPMENT NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate EU CS12EMRGEN-B in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the AQD which may include, but is not limited to, monitoring results, review of operations and maintenance procedures, review of operation and maintenance records, and inspections of the source. **(40 CFR 63.6605(b))**

Deleted: EU CS12EMRGEN-A and

2. The permittee has no time limit on the use of EU CS12EMRGEN-B in emergency situations. **(40 CFR 63.6640(f)(1))**

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3. The permittee may operate EU CS12EMRGEN-B for any combination of purposes specified below for a maximum of 100 hours per calendar year. **(40 CFR 63.6640(f)(2))**

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   a. For maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the AQD for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency reciprocating internal combustion engines (RICE) beyond 100 hours per calendar year.
   b. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2.
   c. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

4. The permittee may operate EU CS12EMRGEN-B for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in III.3 above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

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IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip EU CS12EMRGEN-B with a non-resettable hour meter. **(R 336.1213(3))**

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V. TESTING/SAMPLING

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

NA

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 record the hours of operation of EU CS12EMRGEN-B per calendar year. **(R 336.1213(3))**

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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. If EU CS12EMRGEN-B operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Condition III.3 b or c, the permittee shall submit an annual report according to the requirements below. **(40 CFR 63.6650(h)(1)(2)(3))**
   a. The report must contain the following information:
      i. Company name and address where the engine is located.
      ii. Date of the report and beginning and ending dates of the reporting period.5
      iii. Engine site rating and model year.
      iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
      v. Hours operated for purposes in Condition III.3 b or c, including the date, start time, and end time for engine operation.
      vi. Number of hours the engine is contractually obligated to be available for purposes in Condition III.3 b or c.
      vii. Hours spent for operation for purposes in Condition III.3 b or c, including the date, start time, and end time for engine operation. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
   b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
   c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.

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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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR, Part 63, Subparts A and ZZZZ, as they apply to EU CS12EMRGEN-B. **(40 CFR, Part 63, Subparts A and ZZZZ)**

Deleted: EUSCGEN001

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).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-S1. Abbreviations and Acronyms

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H_2S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO_2	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

ANR STORAGE COMPANY
Section 1 – Cold Springs 12 Compressor Station

Appendix 2-S1. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-S1. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-S1. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

Appendix 5-S1. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-S1. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B7198-2008. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B7198-2008 is being reissued as Source-Wide PTI No. MI-PTI-B7198-2014

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
79-97B	201300051	EU CS12GLYDHY Define sweet natural gas as containing no more than 1 grain of hydrogen sulfide or 10 grains of total sulfur per 100 standard cubic feet. Require analysis of the pre-dehydration natural gas to determine its non-methane VOC content and composition once every five years. Require compliance with applicable conditions from 40 CFR, Part 63, Subpart HHH. FG CS12CMPRS Define natural gas used as not containing more than 20 grains of total sulfur per 100 cubic feet of natural gas.	EU CS12GLYDHY, FG CS12CMPRS

Appendix 7-S1. Emission Calculations

Appendix 7A. EU CS12HHH

The permittee shall use the following equation, or alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data to determine compliance with the emission limit of BTEX referenced in EU CS12HHH-S1, I.1, BTEX emissions (40 CFR 63.1275 equation 1).

$$EL_{BTEX} = 3.10x10^{-4} * Throughput * C_{i,BTEX} * 365 \frac{days}{yr} * \frac{1\,Mg}{1x10^{6}\,grams} \quad \text{Equation 1}$$

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

3.10×10^{-4} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day;

$C_{i,BTEX}$ = Annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

Appendix 7B. FG CS12CMPRS

The permittee shall calculate and record the NOx emissions in pounds per hour for each engine in FG CS12CMPRS using this equation, or an alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data. The permittee may calculate NOx emissions from each engine in FG CS12CMPRS by using an emission factor based on stack tests of the compressor engines.

NOX (lb/hr) = natural gas usage (mmscf/month)/engine operation (hrs/month) X EF (lb NOx/mmscf)

Where:

mmscf is million standard cubic feet

EF is an emission factor expressed as pounds of NOx emitted per million cubic feet of gas used as fuel. EF shall be periodically recalculated as more current stack tests become available. The recalculated EF is subject to approval by the District Supervisor of the AQD.

Appendix 8-S1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

SECTION 2 – BLUE LAKE GAS STORAGE COMPANY

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq.,

and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following: **(R 336.1301(1))**
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:

a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA. **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
    d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.

37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. [2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. [2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. [2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. [2] **(R 336.1201(4))**

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).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU BLGLYDHY	The glycol dehydration system operates in glycol injection mode to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydrator has a condenser and a thermal oxidizer as control devices.	04/27/1994	NA
EU BLHHH	40 CFR, Part 63, Subpart HHH establishes national emission limitations and operating limitations for natural gas transmission and storage facilities that are major sources of HAP emissions. The rule affects facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final user. Subpart HHH is applicable to EU BLGLYDHY. The glycol dehydrator has the option of using a condenser and/or thermal oxidizer to comply with this regulation.	10/15/15 Compliance date	NA
EUBLHEATER-C	A natural gas fired Gastech 25.28 MMBtu/hr indirect gas withdrawal heater		FG BLDDDDD>10MMBtu/hr
EUBLHEATER-D	A natural gas fired Gastech 25.28 MMBtu/hr indirect gas withdrawal heater		FG BLDDDDD>10MMBtu/hr
EU BLBOILER	A natural gas-fired Cleaver-Brooks 4.184 MMBtu/hr boiler used for building and comfort heating throughout the facility. The emission unit does not have a control device.	Before 6/4/2010	FG BLDDDDD<10MMBtu/hr

Deleted: two modes (glycol injection and glycol absorption)

Deleted: EU BLHEATER-A

Deleted: A natural gas-fired Sivalls 16 MMBtu/hr indirect gas withdrawal heater. ¶
¶
The emission unit does not have a control device.

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Deleted: EU BLHEATER-B

Deleted: A natural gas-fired Sivalls 16 MMBtu/hr indirect gas withdrawal heater. ¶
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The emission unit does not have a control device.

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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU BLCMPR-A	A natural gas-fired, 6,000, HP 2-stroke lean burn Dresser Rand TCVD-12 compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal. Emission control includes a clean burn combustion system on the compressor engine.	04/27/1994	FG BLCMPRS
EU BLCMPR-B	A natural gas-fired, 6,000, HP 2-stroke lean burn Dresser Rand TCVD-12 compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal. Emission control includes a clean burn combustion system on the compressor engine.	04/27/1994	FG BLCMPRS
EU BLCMPR-C	A natural gas-fired, 6,000 HP 2-stroke lean burn Dresser Rand TCVD-12 compressor engine used to compress natural gas into the storage reservoir during injection and into the pipeline during withdrawal. Emission control includes a clean burn combustion system on the compressor engine.	04/27/1994	FG BLCMPRS
EU BLGEN-A	A natural gas-fired 1,125 HP, 4-stroke lean burn Caterpillar 3516 generator engine used to provide primary power to the compressor station in the event of a power outage, and can produce a maximum of 800 KW of energy. The emission unit uses a catalyst as a control device.	04/27/1994	FG BLGENS
EU BLGEN-B	A natural gas-fired 1,125 HP, 4-stroke lean burn Caterpillar 3516 generator engine used to provide primary power to the compressor station in the event of a power outage, and can produce a maximum of 800 KW of energy. The emission unit uses a catalyst as a control device.	04/27/1994	FG BLGENS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU BLGEN-C	A natural gas-fired 1,125 HP, 4-stroke lean burn Caterpillar 3516 generator engine used to provide primary power to the compressor station in the event of a power outage, and can produce a maximum of 800 KW of energy. The emission unit uses a catalyst as a control device.	04/27/1994	FG BLGENS
EU BLCLEANER	Any parts washer/cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners where placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	04/27/1994	FG BLCLEANERS

EU BLGLYDHY
EMISSION UNIT CONDITIONS

DESCRIPTION

The glycol dehydration system operates in glycol injection mode. Glycol injection occurs when a process called low temperature separation is used to remove liquids from the gas stream. Ethylene glycol (EG) is injected into the gas stream and mixes with the liquids to prevent freezing during low temperature separation. The glycol enriched gas stream liquid is regenerated in a reboiler for continual use.

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Deleted: Di-ethylene glycol (DEG)

Deleted: 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 …

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 one tpy.[2]	12 month rolling time period as determined at the end of each calendar month.	EU BLGLYDHY	V.1, VI.1, VI.3, VI.4	**R 336.1205(1), R 336.1702(a), R 336.1901**
2. VOC	28 lbs/day[2]		EU BLGLYDHY	V.1, VI.2, VI.3, VI.4	**R 336.1205(1), R 336.1702(a), R 336.1901)**
3. VOC	5 tpy[2]	12 month rolling time period as determined at the end of each calendar month.	EU BLGLYDHY	V.1, VI.1, VI.3, VI.4	**R 336.1205(1), R 336.1702(a), R 336.1901**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S

1. The permittee shall not use stripping gas in EU BLGLYDHY.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

2. The permittee shall not operate EU BLGLYDHY 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 them to the re-boiler burner or thermal oxidizer for destruction.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

3. Except as provided in the condition below, the permittee shall not operate EU BLGLYDHY 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 336.1205(1), R 336.1702(a), R 336.1901)**

4. If the thermal oxidizer malfunctions, the permittee may operate EU BLGLYDHY provided the condenser is

installed and operating properly. Proper operation includes maintaining a maximum condenser exhaust gas temperature of 80°F.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

5. Sweet natural gas shall be the only fuel supplied to and fired in EU BLGLYDHY. 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. However, 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 BLGLYDHY shall be equipped with a thermal oxidizer.[2] **(R 336.1702(a))**
2. EU BLGLYDHY shall be equipped with a condenser.[2] **(R 336.1702(a))**
3. EU BLGLYDHY shall be equipped with a flash tank. **(R 336.1702(a))**
4. EU BLGLYDHY thermal oxidizer and condenser shall each be equipped with working temperature monitors to continuously monitor the thermal oxidizer and condenser operating temperatures.[2] **(R 336.1702(a), R 336.1213(3))**
5. EU BLGLYDHY 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 80°F for the condenser.[2] **(R 336.1702(a), R 336.1213(3))**
6. The maximum flow rate from the glycol pump shall not exceed 60 gallons per minute.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.[2] **(R 336.1213(3)(b)(ii))**

1. Once every five years the permittee shall analyze the pre-dehydration natural gas processed in EU BLGLYDHY to determine its VOC content and composition. The VOC composition of the natural gas shall be determined by a method or methods standard in the natural gas industry, subject to approval by the AQD.[2] **(R 336.1213(3)(a))**
2. Once every five years the permittee shall analyze the sweet natural gas fuel supplied to and fired in EU BLGLYDHY for grains of hydrogen sulfide or grains of total sulfur per 100 standard cubic feet.[2] **(R 336.1119(i) and (dd))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.[2] **(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 emissions in tons from EU BLGLYDHY. The emissions calculations shall be available to the AQD upon request by the 15th of the following month.[2] **(R 336.1205(1), R 336.1702(a), R 333.1901)**
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 336.1205(1), R 336.1702(a), R 333.1901)**
3. The permittee may calculate the Benzene and VOC emissions from EU BLGLYDHY 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 BLGLYDHY.[2] **(R 336.1205(1), R 336.1702(a), R 333.1901)**
4. The permittee shall recalculate the Benzene and VOC emissions each time the natural gas is analyzed to determine its VOC and Benzene content.[2] **(R 336.1205(1), R 336.1702(a), R 333.1901)**
5. When EU BLGLYDHY is operating, the permittee shall continuously monitor, and record daily, the temperature of the condenser and 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 VOC destruction efficiency of the thermal oxidizer is at least 95 percent by weight.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

8. The permittee shall monitor and record the amount of natural gas processed through EU BLGLYDHY for each calendar day EU BLGLYDHY operates.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

9. Each calendar day EU BLGLYDHY operates, the permittee shall monitor and record the total hours of operation of EU BLGLYDHY.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

10. The permittee shall monitor and record the number of hours EU BLGLYDHY operated with the condenser only.[2] **(R 336.1205(1), R 336.1702(a), R 336.1901)**

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 to the AQD District Supervisor for approval at least 30 days prior to the anticipated analysis date. **(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 test. **(R 336.1205, R 336.1119(i) and (dd))**

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-110 (Reboiler Dehydrator)	16[1]	32.8[1]	**R 336.1901**
2. SV-111C (Condenser)	3.6[1]	25[1]	**R 336.1901**
3. SV-111TI (Thermal Oxidizer)	NA	25[1]	**R 336.1901**

IX. OTHER REQUIREMENT(S)

NA

ANR STORAGE COMPANY
Section 2 – Blue Lake Compressor Station

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).

EU BLHHH
EMISSION UNIT CONDITIONS

DESCRIPTION

The glycol dehydration system operates in injection mode to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydration system meets the definition in 40 CFR 63.1271 and was constructed prior to August 23, 2011 and must attain compliance with the requirements in 40 CFR, Part 63, Subpart HHH by October 15, 2015.

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Emission Units: EU BLGLYDHY

POLLUTION CONTROL EQUIPMENT Condenser and/or Thermal Oxidizer.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. BTEX	Calculated using the equation in Appendix 7A.	Annual	EU BLGLYDHY	V.2, V.4, V.5, VI.9	**40 CFR 63.1275(b)(1)(iii)**

See Appendix 7A

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The process vent from EU BLHHH shall be vented to a control device or a combination of control devices through a closed-vent system. **(40 CFR 63.1275(b)(1)(iii)(A))**

2. The control device(s) shall be one of those specified below and must be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(f)(1))**
   a. A thermal oxidizer that reduces the concentration of BTEX to meet the emission limit in I.1, or the TOC or total HAP concentration in the exhaust gases at the outlet of the oxidizer is reduced to a level equal to or less than 20 ppmv on a dry basis corrected to 3 percent oxygen.
   b. A condenser or other non-destructive control device that is designed and operated to reduce the mass content of BTEX in the gases vented by 95 percent.

3. The permittee shall control HAP emissions from each GCG separator (flash tank) vent unless BTEX emissions from the reboiler vent and the flash tank are reduced to a level less than the limit in condition I.1. **(40 CFR 63.1275(c)(3))**

4. The permittee shall operate and maintain EU BLGLYDHY, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1274(h))**

5. The permittee shall operate each control device in accordance with the requirements specified below: **(40 CFR 63.1281(f)(2))**

a. Each control device used to comply with this subpart shall be operating at all times. More than one unit may be vented to a control device.
b. For each control device monitored in accordance with the requirements of conditions VI.7 - 12, the permittee shall demonstrate compliance according to the requirements of VI.2 (§ 63.1282(e)).

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6. When using a condenser to demonstrate continuous compliance with emission limits the control device shall be operated at a maximum operating temperature established in accordance with the requirements of VI.8. When using a thermal oxidizer to demonstrate continuous compliance with emission limits the control device shall be operated at the minimum operating temperature established in accordance with the requirements of VI.8 or a minimum of 1400°F. **(40 CFR 63.1282(e)(1))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The closed vent system shall be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(c), 40 CFR 63.1283(c)(2)(iii))**
   a. The closed-vent system shall route all gases, vapors, and fumes emitted from the material in and emission unit to a control device that meets the requirements specified in condition III.2.
   b. The closed-vent system shall be designed and operated with no detectable emissions.
   c. Any bypass devices in the closed-vent system that could divert emissions from entering the control device shall be equipped with a flow indicator at the inlet to the bypass device that takes readings every 15 minutes, and that sounds an alarm when the bypass device is open; or the bypass device valve at the inlet to the bypass device shall be secured using a car-seal or lock and key.

2. Each continuous parameter monitoring system (CPMS) shall meet the following specifications and requirements: **(40 CFR 63.1283(d)(1))**
   a. Each CPMS shall measure data values at least once every hour and record either:
      i Each measured data value; or
      ii Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

3. The permittee shall install a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified below. **(40 CFR 63.1283(d)(3))**
   a. For a thermal oxidizer, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature
   b. For a condenser, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

V. TESTING/SAMPLING

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

1. Determination of the actual flow rate of natural gas to EU BLGLYDHY shall be made using either of the following procedures: **(40 CFR 63.1282(a)(1))**
   a. Install and operate a monitoring instrument that directly measures natural gas flow rate to EU BLGLYDHY with an accuracy of ± 2 percent or better. The annual natural gas flow rate shall be converted to a daily average by dividing the annual flow rate by the number of days per year each EU processed natural gas.
   b. Document to the AQD's satisfaction, the actual annual average natural gas flow rate to EU BLGLYDHY.
2. Determination of the actual average BTEX emissions from EU BLGLYDHY with condenser and/or thermal oxidizer control device shall be made using the following procedure: **(40 CFR 63.1282(a)(2))**
   a. Use GRI-GLYCalc™, Version 3.0 or higher. Inputs to the model shall be representative of actual operating conditions of each glycol dehydration unit.

3. The Permittee shall perform "no detectable emissions" testing for closed vent systems using the test methods and procedures specified in 40 CFR 63.1282(b). **(40 CFR 63.1282(b))**

4. If the permittee chooses to conduct a performance test to demonstrate that a control device meets the requirements of III.2 (40 CFR 1281(f)(1)) the permittee shall conduct emissions testing for compliance with the BTEX emission limit calculated using Equation 1 or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement using the following test methods and procedures: **(40 CFR 63.1282(d)(3)**
   a. Method 1 or 1A, 40 CFR, Part 60, Appendix A, as appropriate, shall be used for selection of the sampling sites. The sampling site shall be located at the outlet of the combustion device.
   b. The gas volumetric flowrate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR, Part 60, Appendix A, as appropriate.
   c. To determine compliance with the BTEX emission limit or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement, the permittee shall use one of the following methods: Method 18, 40 CFR, Part 60, Appendix A; ASTM D64200-99 (Reapproved 2004); or any other method or data that have been validated according to the applicable procedures in Method 301, 40 CFR, Part 63, Appendix A.
   d. The permittee shall conduct performance tests according to the following schedule:
      i. An initial performance test shall be conducted no later than October 15, 2015.
      ii. The first periodic performance test shall be conducted not later than 60 months after the initial performance test. Subsequent periodic performance tests shall be conducted at intervals no longer than 60 months following the previous periodic performance test or whenever a source desires to establish a new operating limit. Combustion control devices meeting either of the following criteria are not required to conduct periodic performance tests;
         A. A control device whose model is tested under, and meets the criteria of manufacturers performance test in 40 CFR 63.1282(g).
         B. A combustion control device demonstrating during the performance test that combustion zone temperature is an indicator of destruction efficiency and operates at a minimum temperature of 1400 degrees Fahrenheit.

5. As an alternative to the performance test referenced in V.4 the permittee may elect to use the procedures documented in the GRI report entitled "Atmospheric Rich/Lean method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1282(d)(5))**

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 maintain records of the annual facility natural gas throughput each year. **(40 CFR 63.1270(a)(3))**

2. The permittee shall continuously monitor and record the temperature on the thermal oxidizer or condenser and calculate the daily average temperature for each operating day. **(40 CFR 63.1282(e), 40 CFR 63.1283(d)(4))**
   a. Establish a site specific maximum (condenser) or minimum (thermal oxidizer) temperature to define the conditions at which the control device must be operated to continuously achieve compliance with the emission limit.
   b. Calculate the daily average of the temperature readings in accordance with condition VI.7.
   c. Compliance is achieved when the daily average of the temperature readings calculated under 2.b. is either equal to or greater than the minimum or equal to or less than the maximum monitoring value established under 2.a.

3. When using a condenser as the control device the permittee may demonstrate compliance with BTEX emission reductions by complying with the following requirements: **(40 CFR 63.1282(f))**
   a. The permittee shall establish a site-specific condenser performance curve according to the procedures specified in Condition VI.10.
   b. The permittee must calculate the daily average condenser outlet temperature in accordance with Condition VI.10.

   c. The permittee shall determine the condenser efficiency for the current operating day using the daily average condenser outlet temperature and the condenser performance curve.

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d. At the end of each operating day the permittee shall calculate the 30-day average BTEX emission reduction from the condenser efficiencies for the preceding 30 operating days.
e. Compliance is achieved if the average BTEX emission reduction is equal to or greater than the minimum percent reduction established in Condition VI.9. Deleted: 10

4. For each closed-vent system, the permittee shall comply with the following requirements: **(40 CFR 63.1283(c)(2-4))**
   a. Except for parts of the closed-vent system or cover that are designated unsafe to inspect or difficult to inspect, each closed-vent system and each bypass device shall be inspected according to the procedures specified below according the following schedule:
      i. For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange):
         A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
         B. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices.
      ii. For closed-vent system components other than those specified in VI.5.a.i above:
         A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
         B. Conduct annual inspections to demonstrate that the components or connections operate with no detectable emissions.
         C. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices.
      iii. For each bypass device, except low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices, the permittee shall either:
         A. At the inlet to the bypass device that could divert the steam away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or
         B. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.
   b. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, except as provided in VI.4.c. Deleted: 5
      i A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
      ii Repair shall be completed no later than 15 calendar days after the leak is detected.
   c. Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in § 63.1271, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.

5. Any parts of the closed-vent system or cover that are designated, as described below, as unsafe to inspect are exempt from the inspection requirements of Condition VI.4 if: **(40 CFR 63.1283(c)(5))** Deleted: 5
   a. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with Condition VI.5.a.i or ii.
   b. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

6. Any parts of the closed-vent system or cover that are designated, as described below, as difficult to inspect are exempt from the inspection requirements of Condition VI.4 if: **(40 CFR 63.1283(c)(6))** Deleted: 5
   a. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

   b. The permittee has a written plan that requires inspection of the equipment at least once every 5 years.

7. Using the data recorded by the monitoring system, except for inlet gas flow rate, the permittee must calculate the daily average value for each monitored operating parameter for each operating day. If the emissions unit

operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average. **(40 CFR 63.1283(d)(4))**

8. For the control devices used to comply with 40 CFR, Part 63, Subpart HHH, the permittee shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the emission limits in Section I of FGMACTHHH. Each minimum or maximum operating parameter value shall be established as follows: **(40 CFR 63.1283(d)(5)(i))**
   a. If the permittee conducts performance tests to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by a condenser design analysis or control device manufacturer's recommendations or a combination of both.
   b. If the permittee uses a condenser design analysis to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value shall be established based on the condenser design analysis and may be supplemented by the condenser manufacturer's recommendations.
   c. If the permittee operates a control device where the performance test requirement was met under manufacturers' performance test to demonstrate that the control device achieves the applicable performance requirements, then the maximum inlet gas flow rate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.

9. When using condensers as the control device the permittee shall also establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established using the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc^{tm}, Version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1283(d)(5)(ii))**

10. A deviation for a control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified below being met. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified below, then a single excursion is determined to have occurred for the control device for that operating day. **(40 CFR 63.1283(d)(6)(i-iii))**
    a. When the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter.
    b. When the 30-day average condenser efficiency calculated according to the requirements of Condition VI.3.d is less than the identified 30-day required percent reduction.
    c. When the monitoring data are not available for at least 75 percent of the operating hours in a day.

11. A deviation occurs for a closed-vent system containing one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device when: **(40 CFR 63.1283(d)(6)(iv))**
    a. The flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.
    b. If the seal or closure mechanism has been broken, the bypass line valve position has a changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.

12. For each deviation, the permittee shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard. **(40 CFR 63.1283(d)(7))**

13. Nothing in conditions VI.7 through VI.12 shall be construed to allow or excuse a monitoring parameter deviation caused by any activity that violates other applicable provisions of this subpart. **(40 CFR 63.1283(d)(9))**

14. The permittee shall maintain the records specified in 40 CFR 63.10(b)(2). **(40 CFR 63.1284(b)(2))**

15. The permittee shall maintain the following records: **(40 CFR 63.1284(b)(4), 40 CFR 63.1284(g))**
    o. Continuous records of the equipment operating parameters specified to be monitored in Conditions VI.7-9.
    p. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in Condition VI.9.
    q. For condensers using reduction efficiency for compliance, records of the annual 30-day rolling average condenser efficiency determined in Condition VI.3.d shall be kept in addition to the daily averages.
    r. The following records for a control device whose model is tested under the manufacturers' performance test:
        i All visible emission readings and flow rate calculations made during the compliance determination
        ii All hourly records and other recorded periods when the pilot flame is absent.
    s. Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.
    t. Where a seal or closure mechanism is used to comply with the closed vent bypass, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

16. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with Condition VI.5, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(5))**

17. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with Condition VI.6, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(6))**

18. The permittee shall maintain the following records for each inspection conducted in accordance with Condition VI.4 during which a leak or defect is detected. **(40 CFR 63.1284(b)(7))**
    a. The instrument identification numbers, operator name or initials, and identification of the equipment.
    b. The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.
    c. Maximum instrument reading measured by the method specified in Condition V.3 after the leak or defect is successfully repaired or determined to be non-repairable.
    d. "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.
    e. The name, initials, or other form of identification of the permittee (or designee) whose decision it was that repair could not be affected without a shutdown.
    f. The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.
    g. Dates of shutdowns that occur while the equipment is unrepaired.
    h. The date of successful repair of the leak or defect.

19. For each inspection conducted in accordance with Condition VI.4 during which no leaks or defects are detected, the permittee shall maintain a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected. **(40 CFR 63.1284(b)(8))**

20. The permittee shall maintain records of the occurrence and duration of each malfunction of process equipment or the air pollution control equipment and monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with Condition III.4 including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.1284(f))**

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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 the notification of the planned date of a performance test and site–specific test plan at least 60 days before the test. **(40 CFR 63.1285(b)(3))**

5. The permittee shall submit a Notification of Compliance Status Report as required under § 63.9(h) within 180 days after October 15, 2015. In addition to the information required under § 63.9(h) the Notification of Compliance Status Report shall include the information specified in paragraphs 5.a. through l. of this section. If an owner or operator submits the required information at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information. **(40 CFR 63.1285(d))**
   a. If a closed-vent system and a control device other than a flare are used to comply with § 63.1274, the owner or operator shall submit the information in condition 5.a.iii. and the information in either paragraph 5.a.i. or ii.
      i. The condenser design analysis documentation specified in § 63.1282(d)(4) if the owner or operator elects to prepare a design analysis; or
      ii. If the owner or operator is required to conduct a performance test, the performance test results including the information specified in condition 5.a.ii.A and B. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.1282(d)(3), and that the test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under § 63.1282(g), an electronic copy of the performance test results shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following Web site: *epa.gov/airquality/oilandgas/* .
         A. The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in § 63.1282(d)(3); and
         B. The value of the monitored parameters specified in § 63.1283(d), or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.
      iii. The results of the closed-vent system initial inspections performed according to the requirements in § 63.1283(c)(2)(i) and (ii).
   b. The owner or operator shall submit one complete test report for each test method used for a particular source.
      i. For additional tests performed using the same test method, the results specified in Condition 5.a.ii. shall be submitted, but a complete test report is not required.
      ii. A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

   c. For each control device other than a flare used to meet the requirements of § 63.1274, the owner or operator shall submit the information specified in Condition 5.d.i. through iv for each operating parameter required to be monitored in accordance with the requirements of § 63.1283(d).
      i. The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of § 63.1281(d)(1) or (e)(3)(ii).

ii. An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in § 63.1283(d)(5). This explanation shall include any data and calculations used to develop the value, and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of § 63.1281(d)(1), (e)(3)(ii), or (f)(1).
iii. A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

d. Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.
e. The owner or operator shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under 40 CFR, Part 63, Subpart HHH. Each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.
f. The owner or operator shall submit an analysis demonstrating whether an affected source is a major source using the maximum throughput calculated according to § 63.1270(a).
g. The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.
h. If the owner or operator installs a combustion control device model tested under the manufacturer's performance test procedures in § 63.1282(g), the Notification of Compliance Status Report shall include the data listed under § 63.1282(g)(8).
i. For each combustion control device model tested under § 63.1282(g), the information listed in paragraphs 5.i.i. through vi of this section.
   i. Name, address and telephone number of the control device manufacturer.
   ii. Control device model number.
   iii. Control device serial number.
   iv. Date the model of control device was tested by the manufacturer.
   v. Manufacturer's HAP destruction efficiency rating.
   vi. Control device operating parameters, maximum allowable inlet gas flow rate.

6. The Permittee shall prepare Periodic Reports in accordance with a. and b. below and submit them to the Administrator. **(40 CFR 63.1285(e))**
   a. The permittee shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. The report shall include certification by a responsible official of truth, accuracy, and completeness.
   b. The permittee shall include the following information and any other information as applicable in §63.1285(e)(2).
      i A description of all deviations as defined in Conditions VI.12-14 that have occurred during the 6-month reporting period, and the information described in §63.1285(e)(2)(ii).
      ii For each inspection conducted in accordance with Condition VI.5 during which a leak or defect is detected, the records described in Condition VI.21 must be included in the next Periodic Report.
      iii For each closed-vent system with a bypass line, records required under Condition VI.17.e and f.
      iv A statement identifying if there were no deviations during the reporting period.
      v Any change in compliance methods as described in §63.1282(e).
      vi The results of any periodic test conducted during the reporting period.

7. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report, whichever is sooner. The report shall include: **(40 CFR 63.1285(f))**
   a. A brief description of the process change;
   b. A description of any modification to standard procedures or quality assurance procedures;
   c. Revisions to any of the information reported in the original Notification of Compliance Status Report under condition VII.5
   d. Information required by the Notification of Compliance Status Report under Condition VII.5 for changes involving the addition of processes or equipment.

8. Within 60 days after the date of completing a performance test (defined in § 63.2) you must submit the results of the performance tests to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. All reports required by this subpart not subject to the above electronic reporting requirements must be sent to the Administrator at the appropriate address. The Administrator may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports in paper format. **(40 CFR 63.1285(g))**

9. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall determine major source status using the maximum annual facility natural gas throughput calculated according to 40 CFR 63.1270(a)(1)(i) through (a)(1)(iv). As an alternative to calculating the maximum natural gas throughput, the owner or operator of a new or existing source may use the facility design maximum natural gas throughput to estimate the maximum potential emissions. **(40 CFR 63.1270(a)(1))**

2. The permittee shall determine the maximum values for other parameters used to calculate potential emissions as the maximum over the same period for which maximum throughput is determined. These parameters shall be based on an annual average or the highest single measured value. For estimating maximum potential emissions from glycol dehydration units, the glycol circulation rate used in the calculation shall be the unit's maximum rate under its physical and operational design consistent with the definition of potential to emit in 40 CFR 63.2. **(40 CFR 63.1270(a)(4))**

3. A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements. Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in your approved site-specific monitoring plan. The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified below and in your site-specific monitoring plan. **(40 CFR 63.1283(d)(1)(ii-iv))**

   a. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
   b. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
   c. Equipment performance checks, system accuracy audits, or other audit procedures;
   d. Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1) and (c)(3);
   e. Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).

f. The permittee must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months.
g. The permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

4. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart HHH, for Natural Gas Transmission and Storage Facilities by October 15, 2015. **(40 CFR, Part 63, Subparts A and HHH)**

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).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG BLDDDDD>10MMBtu/hr	Emission Units greater than 10 MMBtu/hr subject to 40 CFR, Part 63, Subpart DDDDD.	EU BLHEATER-C, EU BLHEATER-D,
FG BLDDDDD<10MMBtu/hr	Emission Units less than 10 MMBtu/hr subject to 40 CFR, Part 63, Subpart DDDDD.	EU BLBOILER
FG BLCMPRS	Three Dresser Rand 6000 HP, 2-stroke lean burn IC compressor engines with catalytic oxidizers.	EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C
FG BLHEATERS	Two Sivalls withdrawal gas heaters, 16 million BTU/hr heat input each.	EU BLHEATER-A, EU BLHEATER-B
FG BLGNRS	Three 3516 Caterpillar 1,125 HP, 4-stroke lean burn IC generator engines with catalytic oxidizers.	EU BLGEN-A, EU BLGEN-B, EU BLGEN-C
FG BLCLEANER	Any parts washer/cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners where placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU BLCLEANER

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Deleted: EU BLBOILER

FG BLDDDDD<10MMBTU/hr
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for existing Gas 1 (Natural Gas only) for existing Boilers and Process Heater at major sources of Hazardous Air Pollutants pre 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in 40 CFR 63.6(i).

Emission Units:

Less than 5 MMBtu/hr	EU BLBOILER (4.184 MMBtu/hr)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(l))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

2. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1. **(40 CFR 63.7500(b))**

3. The permittee must, for boilers or process heaters with a heat input capacity of less than or equal to 5 MMBTU/hr, conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. **(40 CFR 63.7500(d) or (e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**

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Requirements for existing Gas 1, (Natural Gas only) for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in 40 CFR 63.6(i).¶

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Requirements for 2 new process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.¶

Deleted: The collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within the units designed to burn gas 1 fuel subcategory as defined in 40 CFR 63.7575. At the time of permit renewal:¶

Deleted: Equal to or greater than 5 MMBtu/hr and less than 10 MMBtu/hr ... [5]

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The permittee must, for boilers or process heaters installed after June 4, 2010, complete an initial tune-up as specified in SC III.5 by no later than DATE. **(40 CFR 63.7510(g))...**

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a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

4. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**

5. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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¶
<#>The permittee must complete an initial tune-up of each emission unit installed after June 4, 2010 that has a continuous oxygen trim system as specified in SC III.5 by no later than DATE. **(40 CFR 63.7510(g))**¶

Deleted: <#>The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13 months after the previous tune-up. **(40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)**¶

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<#>Complete a tune-up every 5 years (61 months) for boilers/process heaters less than or equal to 5 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**¶
<#>Complete a tune-up annually (13 months) for boilers greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 40 CFR 63.7515(d))**¶
<#>Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**¶
<#>Follow the procedures described in SC IX 3.a through 3.f for all initial and subsequent tune ups. ¶
(40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)¶
¶

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**

2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**

3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.

   a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**

   b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**

   c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**

6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(a), (b), and (c))**

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. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.6, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct a biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC III.3.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC III.3.a, and not subject to emission limits or operating limits, the permittee may submit only a biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report. **(40 CFR 63.7550(b))**

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Deleted: <#>The permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source. **(40 CFR 63.7545(c))**¶
¶

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a. When submitting a 5-year compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 5 years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**

b. The first 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**

c. 5-year compliance reports must cover the applicable 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**

d. 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

5. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**

a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**

b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**

c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**

d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii)**

6. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**

a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

See Appendix 8.

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

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).

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<#>When submitting an annual or 5-year compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 1, or 5 years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. ¶ **(40 CFR 63.7550(b)(1))¶**
<#>The first annual or 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))¶**
<#>Annual and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))¶**
<#>Annual and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))¶**
¶
<#>The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))¶** ... [6]

Deleted: <#>The permittee must be in compliance with the applicable work practice standards. **(40 CFR 63.7505(a))¶**
¶
<#>For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed sinc ... [7]

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¶
EU BLHEATER-A (16 MMBtu/hr), EU BLHEATER-B (16 MMBtu/hr), and EU BLBOILER (4.184 MMBtu/hr) with heat input values less than 50 MMBtu/hr each are subject to 40 CFR, Part 63, Subpart DDDDD National Emission Stan ... [8]

FG BLDDDDD>10MMBTU/hr
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for 2 new process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.

Emission Units:

Equal to or greater than 10 MMBtu/hr	EU BLHEATER-C (25.28 MMBtu/hr), EU BLHEATER-D (25.28 MMBtu/hr)

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POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(l))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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2. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1. **(40 CFR 63.7500(b))**

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3. The permittee must, for boilers or process heaters installed after June 4, 2010, complete an initial tune-up as specified in SC III.5 by no later than 1 year after startup. **(40 CFR 63.7510(g))**

4. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13 months after the previous tune-up. **(40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)**

   a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**

   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**

   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**

   d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**

   e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

5. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**

6. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**

2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**

3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
   a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
   b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
   c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**

6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(a), (b), and (c))**

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 must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source. **(40 CFR 63.7545(c))**

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5. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.6, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below.
   e. When submitting an annual compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 1 year, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
   f. The first annual compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
   g. Annual compliance reports must cover the applicable 1-year period from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
   h. Annual compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

6. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**
   f. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
   g. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
   h. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
   i. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
   j. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**

7. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**
   c. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

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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).

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IX. OTHER REQUIREMENT(S)¶
¶
1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart DDDDD: Industrial, Commercial, and Institutional Boilers and Process Heaters no later than January 31, 2016. **(40 CFR, Part 63, Subpart DDDDD, 40 CFR 63.7495(b))**¶
¶
¶
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).¶

FG BLCMPRS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three natural gas-fired, 6,000, HP 2-stroke lean burn Dresser Rand TCVD-12 compressor engine used to compress natural gas into the storage reservoir during injection, and into the pipeline during withdrawal.

Emission Units: EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C

POLLUTION CONTROL EQUIPMENT Clean burn/lean burn system.

I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	NOx	26.4 pph[2]	Test Protocol*	EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C (The limit applies to each individual compressor engine.)	V.1, VI.3, VI.4, VI.5, VI.6	**40 CFR 52.21, R 336.2802**
2.	CO	37.0 pph[2]	Test Protocol*	EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C (The limit applies to each individual compressor engine.)	V.1, VI.3, VI.4, VI.5, VI.6	**40 CFR 52.21, R 336.2802**
3.	VOC	9.7 pph[2]	Test Protocol*	EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C (The limit applies to each individual compressor engine.)	V.1, VI.3, VI.4, VI.5, VI.6	**40 CFR 52.21, R 336.2802**

*Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall use only sweet natural gas as fuel for the compressor engines. 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.[2] **R 336.1119(i) and (dd))**

2. The permittee shall not operate the three compressor engines unless the clean burn/lean burn combustion

systems on each engine are installed and operating properly.[2] **(R 336.1910)**

3. The combined total hours of operation of the three compressor engines shall not exceed 15,000 hours per calendar year.[2] **(40 CFR 52.21)**

4. The permittee shall operate the compressor engines within their established operating envelope as approved by the AQD. **(R 336.1213(3))**

5. The permittee shall operate EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C at the torque and speed established within their operating envelope. The operating envelope shall be approved by the AQD. **(R 336.1213(3))**

6. The permittee shall operate the FG BLCMPRS per the AQD approved malfunction abatement plan. **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The NOx emission rate from each compressor engine shall not exceed 2 grams per brake horsepower hour at 100 percent speed and 100 percent torque.[2] **(40 CFR 52.21)**

2. The CO emission rate from each compressor engine shall not exceed 2.8 grams per brake horsepower hour at 100 percent speed and 100 percent torque.[2] **(40 CFR 52.21)**

3. The VOC emission rate from each compressor engine shall not exceed 0.73 grams per brake horsepower hour at 100 percent speed and 100 percent torque.[2] **(40 CFR 52.21; R336.1702(a))**

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 conduct a stack test of NOx, CO, and VOC emissions on EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C. **(R 336.1213(3)(a))**

2. All testing, sampling, analytical and calibration procedures used for any stack test program shall be performed in accordance with 40 CFR, Part 60, and Appendix A, Methods 2, 3A, 7E, 10, 10B, and 25 or other acceptable reference methods approved by the AQD. **(R 336.1213(3)(a))**

3. Once every five years the permittee shall demonstrate compliance with the grains of total sulfur in the compressor engine fuel by analyzing the fuel.[2] **(R 336.1119(i) and (dd))**

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 record the total fuel consumption for each compressor engine in FG BLCMPRS for each calendar month. **(R 336.1213(3)(b))**

2. The permittee shall record the total engine hours of operation for each compressor engine in FG BLCMPRS for each calendar month. **(40 CFR 52.21)**

3. The permittee shall calculate and record the NOx, CO, and VOC emissions in pounds per hour for each engine in FG BLCMPRS calculated as an average over each calendar month using the equation in Appendix 7B, or an alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data. The permittee may calculate NOx, CO, and VOC emissions from each engine in FG BLCMPRS by using an emission factor based on stack tests of the compressor engines. The emissions calculations shall be available

   to the AQD upon request by 15th of the following month. (R 336.1213(3))

4. The permittee shall recalculate the emission factor following the verification of emission rates from stack testing required in V. Testing. **(R 336.1213(3))**

5. The permittee shall continuously monitor and record the torque and speed of EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C, to ensure the compressor engines operate within the established operating envelope. **(R 336.1213(3)(a))**

6. The permittee shall maintain the compressor engine operating envelope using the most recent stack test data. The operating envelope shall be approved by AQD. **(R 336.1213(3)(a))**

7. The permittee shall record monthly natural gas used for EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C start-up and blow-down and a calculation, acceptable to the AQD, showing year-to-date VOC emission rates. **(R 336.1213(3))**

Appendix 7B

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 two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing.[2] **(R 336.12001(3))**

5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.[2] **(R 336.2001(5))**

7. The permittee shall submit a complete analysis plan to the AQD District Supervisor for approval at least 30 days prior to the anticipated analysis date. **(R 336.1119(i) and (dd))**

8. 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 test. **(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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-101 (EU BLCMPR-A)	48[2]	70.5[2]	**40 CFR 52.21, R 336.1802**
2. SV-102 (EU BLCMPR-B)	48[2]	70.5[2]	**40 CFR 52.21, R 336.1802**
3. SV-103 (EU BLCMPR-C)	48[2]	70.5[2]	**40 CFR 52.21, R 336.1802**

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain a malfunction abatement plan approved by the AQD District Supervisor in accordance with Rule 336.1911 for FG BLCMPRS. **(R 336.1911)**

2. The permittee shall develop an "operating envelope" within which each compressor engine has demonstrated, by emissions testing, to operate in compliance with all applicable NOx, CO, and VOC emission limits in pounds per hour. Ranges of engine torque and speed will define the operating envelope. The operating envelope shall be revised after stack testing, and the operating envelope shall be approved by the AQD. **(R 336.1213(3))**

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).

FG BLHEATERS
FLEXIBLE GROUP CONDITIONS
Please remove FG BLHEATERS

Deleted: DESCRIPTION¶
Two natural gas-fired Sivalls 16 MMBtu/hr indirect gas withdrawal heaters.¶
¶
Emission Unit: EU BLHEATER-A and EU BLHEATER-B.¶
¶
POLLUTION CONTROL EQUIPMENT NA¶
¶
¶
I. EMISSION LIMIT(S)¶
¶
Pollutant ... [9]

FG BLGENS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three natural gas-fired 1,125 HP 4-stroke lean burn Caterpillar 3516 generator engine used to provide primary power to the compressor station, and can produce a maximum of 800 KW of energy.

Emission Unit: EU BLGEN-A, EU BLGEN-B, and EU BLGEN-C

POLLUTION CONTROL EQUIPMENT Oxidation Catalyst.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	5.7 pph[2]	Test Protocol*	EU BLGEN-A, EU BLGEN-B, EU BLGEN-C (The limit applies to each individual generator engine.)	V.1, VI.4, VI.5	**R 336.1205(1)**
2. CO	1.6 pph[2]	Test Protocol*	EU BLGEN-A, EU BLGEN-B, EU BLGEN-C (The limit applies to each individual generator engine.)	V.1, VI.4, VI.5	**R 336.1205(1)**
3. VOC	0.9 pph[2]	Test Protocol*	EU BLGEN-A, EU BLGEN-B, EU BLGEN-C (The limit applies to each individual generator engine.)	V.1, VI.4, VI.5	**R 336.1702**

*Test Protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall use only sweet natural gas as fuel for the generator engines. 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.[2] **(R 336.1119(i) and (d))**

2. The permittee shall not operate any generator engine in FG BLGENS unless the catalytic oxidation system is installed and operating properly.[2] **(R 336.1910)**

3. The permittee shall not operate any generator engine in FG BLGENS unless the lean burn/clean burn system is installed and operating properly.[2] **(R 336.1910)**

4. The permittee shall not operate any generator engine in FG BLGENS unless the air/fuel ratio control system of that generator engine is installed and operating properly. **(R 336.1910)**

5. The combined total hours of operation of the three generator engines in FG BLGENS shall not exceed 16,380 hours per calendar year.[2] **(R 336.1205(1))**

6. The permittee shall not operate a generator engine in FG BLGENS unless the generator engine's inlet and outlet temperature across the catalyst is in compliance with the AQD approved Malfunction Abatement Plan. As an alternative, the permittee shall not operate a generator engine in FG BLGENS unless the pressure drop at the inlet and outlet across the catalyst are in compliance with the AQD approved Malfunction Abatement Plan. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The NO_x emission rate from each generator engine shall not exceed 2 grams per brake horsepower hour at the maximum operating limit of 90 percent load.2 **(R 336.1205)**

2. The CO emission rate from each generator engine shall not exceed 1.4 grams per brake horsepower hour at the maximum operating limit of 90 percent load.2 **(R 336.1205)**

3. The VOC emission rate from each generator engine shall not exceed 0.55 grams per brake horsepower hour at the maximum operating limit of 90 percent load.2 **(R 336.1205)**

4. The permittee shall install and maintain a temperature monitor at the inlet and outlet of the catalytic converter. As an alternative, the permittee shall install and maintain a pressure monitor at the inlet and outlet of the catalytic converter. **(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 conduct a stack test on each engine in FG BLGENS to determine the NO_x, CO and VOC emissions in pounds per hour. **(R 336.1213(3)(b))**

2. All testing, sampling, analytical and calibration procedures used for any stack test program shall be performed in accordance with 40 CFR, Part 60 and Appendix A, Methods 1, 3A, 7E, 10, 18 and 19 or other acceptable reference methods approved by the AQD. **(R 336.1213 (3)(a))**

3. Once every five years the permittee shall analyze the sweet natural gas fuel supplied to and fired in the generator engines 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 monitor and record the hours of operation per calendar month for each generator engine in FG BLGENS[2]. **(R 336.1205(1))**

2. The permittee shall continuously monitor the fuel consumption for each generator engine in FG BLGENS. The permittee shall record the fuel consumption once an hour. **(R 336.1213(3)(a))**

3. The permittee shall continuously monitor the temperature difference across each catalytic oxidizer and once

per hour record the temperature difference across each catalytic oxidizer. As an alternative, the permittee shall continuously monitor the pressure drop across each catalytic oxidizer and once per day record the pressure difference across each catalytic oxidizer. **(R 336.1213(3)(a))**

4. The permittee shall calculate and record the NO_x, CO and VOC emissions in pounds per hour for each engine in FG BLGENS calculated as an average over each calendar month using the equation in Appendix 7C, or an alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data. The permittee may calculate NO_x, CO and VOC emissions from each engine in FG BLGENS by using an emission factor based on stack tests of the generator engines. The emissions calculations shall be available to the AQD upon request by the 15th of the following month. **(R 336.1213(3))**

5. The permittee shall recalculate the emission factor used to calculate emissions from the generator engines following the verification of emission rates from stack testing required in V. Testing. **(R 336.1213(3)(a))**

See Appendix 7C

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 two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing.[2] **(R 336.2001(3))**

5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.[2] **(R 336.2001(5))**

7. The permittee shall submit a complete analysis plan to the AQD District Supervisor for approval at least 30 days prior to the anticipated analysis date. **(R 336.1119(i) and (dd))**

8. 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 test. **(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-104 (EU BLGEN-A)	10[2]	64.6[2]	**R 336.1205**
2. SV-105 (EU BLGEN-B)	10[2]	64.6[2]	**R 336.1205**
3. SV-106 (EU BLGEN-C)	10[2]	64.6[2]	**R 336.1205**

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain a malfunction abatement plan (MAP) approved by the AQD District Supervisor in accordance with Rule 336.1911 for FG BLGENS. The MAP shall include each generator engine's inlet and outlet temperature across the catalyst; or as an alternative the permittee shall include each generator engine's inlet and outlet pressure across the catalyst. The temperature and pressure will be established during stack testing and demonstrate compliance with emission limits. **(R 336.1911)**

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).

FG BLCLEANERS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EU BLCLEANER

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(h))**
   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(r)(iv))**

2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
   a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
   b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**

   c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method

of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
   a. A serial number, model number, or other unique identifier for each cold cleaner.
   b. The date the unit was installed, manufactured or that it commenced operation.
   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
   d. The applicable Rule 201 exemption.
   e. The Reid vapor pressure of each solvent used.
   f. If applicable, the option chosen to comply with Rule 707(2).

3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**

4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

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))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-S2. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H_2S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO_2	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

Appendix 2-S2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-S2. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-S2. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

Appendix 5-S2. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-S2. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B7198-2008. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B7198-2008 is being reissued as Source-Wide PTI No. MI-PTI-B7198-2014.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
17-07A	201300051	EU BLGLYDHY Define sweet natural gas as containing no more than 1 grain of hydrogen sulfide or 10 grains of total sulfur per 100 standard cubic feet. Require analysis of the pre-dehydration natural gas to determine its non-methane VOC content and composition once every five years. Require compliance with applicable conditions from 40 CFR, Part 63, Subpart HHH. FG BLCMPRS Define sweet natural gas as containing no more than 1 grain of hydrogen sulfide or 10 grains of total sulfur per 100 cubic feet. Require demonstration with compliance of the grains of total sulfur in the fuel once every five years.	EU BLGLYDHY, FG BLCMPRS
NA	201300122	The revised malfunction abatement plan (MAP) replaced the former MAP.	EU BLCMPR-A, EU BLCMPR-B, EU BLCMPR-C, FG BLCMPRS

ANR STORAGE COMPANY
Section 2 – Blue Lake Compressor Station
Appendix 7-S2. Emission Calculations

Appendix 7A. EU BLHHH

The permittee shall use the following equation, or alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data to determine compliance with the emission limit of BTEX referenced in EU BLHHH, I.1, BTEX emissions (40 CFR 63.1275 equation 1).

$$EL_{BTEX} = 3.10x10^{-4} * Throughput * C_{i,BTEX} * 365 \frac{days}{yr} * \frac{1\,Mg}{1x10^{6}\,grams} \quad \text{Equation 1}$$

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

3.10×10^{-4} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day;

$C_{i,BTEX}$ = Annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

Appendix 7B. FG BLCMPRS

The permittee shall calculate and record the NOx, CO, and VOC emissions in pounds per hour for each engine in FG BLCMPRS as an average over each calendar month using this equation, or an alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data. The permittee may calculate NOx, CO, and VOC emissions from each engine in FG BLCMPRS by using an emission factor based on stack tests of the compressor engines.

NOX, CO, or VOC (lb/hr) = natural gas usage (mmscf/hour)/engine operation (hours/month) X EF (pound NOx, CO, or VOC/mmscf)

Where:

mmscf is million standard cubic feet

EF is an emission factor expressed as pounds of NOx, CO, and VOC emitted per million cubic feet of gas used as fuel. EF shall be periodically recalculated as more current stack tests become available. The recalculated EF is subject to approval by the District Supervisor of the AQD.

Appendix 7C FG BLGENS

The permittee shall calculate and record the NOx, CO, and VOC emissions in pounds per hour for each engine in FG BLGENS as an average over each calendar month using this equation, or an alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data. The permittee may calculate NOx, CO, and VOC emissions from each engine in FG BLGENS by using an emission factor based on stack tests of the generator engines.

NOX, CO, or VOC (lb/hr) = natural gas usage (mmscf/month)/engine operation (hrs/month) X EF (lb NOx, CO or VOC/mmscf)

Where:

mmscf is million standard cubic feet

EF is an emission factor expressed as pounds of NOx, CO, and VOC emitted per million cubic feet of gas used as fuel. EF shall be periodically recalculated as more current stack tests become available. The recalculated EF is subject to approval by the District Supervisor of the AQD.

Appendix 8-S2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

SECTION 3 – COLD SPRINGS 1 COMPRESSOR STATION

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed

by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following: **(R 336.1301(1))**
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the AQD in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.

c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA. **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**

b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**

c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.

37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. [2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. [2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. [2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. [2] **(R 336.1201(4))**

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).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCS1GLYDHY	As the wet natural gas is withdrawn from the storage field, the difference between the field pressure and the pipeline pressure causes the temperature of the natural gas to drop. This temperature drop causes condensation of water and hydrocarbon liquids present in the wet natural gas. Cold Springs 1 uses ethylene glycol injection into the withdrawal gas stream for prevention of hydrate formation and freeze protection. During regeneration, process water and other hydrocarbon constituents are removed and lean glycol is returned to the injection system. The regenerator's still column off-gases are routed first through a condenser for bulk water and hydrocarbon removal. The remaining hydrocarbon-rich vapors are then sent to the thermal oxidizer. The glycol dehydrator has a condenser and a thermal oxidizer. (PTI No. 138-13A)	12/01/2008	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU CS1HHH	40 CFR, Part 63, Subpart HHH establishes national emission limitations and operating limitations for natural gas transmission and storage facilities that are major sources of HAP emissions. The rule affects facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final user. Subpart HHH is applicable to EUCS1GLYDHY. The glycol dehydrator has the choice of using a condenser and/or a thermal oxidizer for compliance with this regulation.	10/15/15 Compliance date	NA
EU CS1LSHEATER	A natural gas-fired liquid stabilization heater rated at 5 MMBtu/hr.	Before 6/04/2010	FG CS1DDDDD
EU CS1WDHEATER	A natural gas-fired Withdrawal Heater rated at 15 MMBtu/hr used to heat gas upon withdrawal. The emission unit does not have a control device.	Before 6/04/2010	FG CS1DDDDD
EU CS1BOILER	A natural gas-fired boiler rated at 3.5 MMBtu/hr used for building and comfort heating throughout the facility. The emission unit does not have a control device.	Before 6/04/2010	FG CS12DDDDD
EU CS1CNDTANK1	A condensate storage tank with a maximum capacity of 16,800 gallons used to store stabilized condensate liquids. The emission unit is controlled by a thermal oxidizer.	12/08/2008	FG CS1CNDTANKS
EU CS1CNDTANK2	A condensate storage tank with a maximum capacity of 16,800 gallons used to store stabilized condensate liquids. The emission unit is controlled by a thermal oxidizer.	12/08/2008	FG CS1CNDTANKS
EU CS1CNDTANK3	A condensate storage tank with a maximum capacity of 16,800 gallons used to store stabilized condensate liquids. The emission unit is controlled by a thermal oxidizer.	12/08/2008	FG CS1CNDTANKS

ANR STORAGE COMPANY
Section 3 – Cold Springs 1 Compressor Station

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU CS1CNDTANK4	A condensate storage tank with a maximum capacity of 16,800 gallons used to store stabilized condensate liquids. The emission unit is controlled by a thermal oxidizer.	12/08/2008	FG CS1CNDTANKS

EUCS1GLYDHY
EMISSION UNIT CONDITIONS

DESCRIPTION

Glycol Dehydration system has a 1.75MM BTU/Hr glycol reboiler. Cold Springs 1 uses ethylene glycol injection into the withdrawal gas stream for prevention of hydrate formation and freeze protection.

During regeneration, process water and other hydrocarbon constituents are removed and lean glycol is returned to the injection system. The regenerator's still column off-gases are routed first through a condenser for bulk water and hydrocarbon removal. The remaining hydrocarbon-rich vapors are then sent to the thermal oxidizer. (PTI No. 138-13A)

Flexible Group ID:

NA

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 one ton per year[1]	12-month rolling time period as determined at the end of each calendar month.	EUCS1GLYDHY	VI.1	**R 336.1225**
2. Benzene	0.995 pph with condenser only[1]	Test Protocol*	EUCS1GLYDHY	VI.2	**R 336.1225**
3. Benzene	0.02 pph with condenser followed by thermal oxidizer in series[1]	Test Protocol*	EUCS1GLYDHY	VI.2	**R 336.1225**

*Test Protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The glycol re-circulation rate shall not exceed a maximum of 960 gallons per hour.[2] **(R 336.1225, R 336.1702(a))**

2. The permittee shall not process natural gas in EUCS1GLYDHY unless the flash tank is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1702(a))**
   Satisfactory operation includes:
   a. Routing the glycol through the flash tank prior to reboiling the glycol.
   b. Routing the flash tank exhaust gas to a combustion device.

3. Except as allowed in the condition below, the permittee shall not process natural gas in EUCS1GLYDHY unless the glycol reboiler vent is routed through a condenser and thermal oxidizer operating in series. These control devices must be installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1702(a))**
   Satisfactory operation of the condenser and thermal oxidizer includes:

a. CONDENSER
   i. Maximum exhaust gas temperature of 100°F (when bypassing the thermal oxidizer).
b. THERMAL OXIDIZER
   i. Minimum VOC destruction efficiency of 98 percent (by weight).
   ii. Maintain a minimum exhaust temperature of 1400°F.
   iii. Minimum retention time of 0.5 seconds.

4. During periods of thermal oxidizer outage or malfunction, the permittee may bypass the thermal oxidizer and control the glycol reboiler vent with only the condenser. Bypass of the thermal oxidizer shall not exceed 200 hours per 12-month rolling time period.[2] **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. EUCS1GLYDHY shall be equipped with a thermal oxidizer. **(R 336.1213(3))**

2. EUCS1GLYDHY shall be equipped with a condenser. **(R 336.1213(3))**

3. EUCS1GLYDHY shall be equipped with a flash tank. **(R 336.1213(3))**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the thermal oxidizer and condenser exhaust gas temperatures, and the thermal oxidizer bypass temperature. [2] **(R 336.1213(3))**

5. EUCS1GLYDHY 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 100°F for the condenser. **(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 natural gas processed in the glycol dehydration unit to determine its content and composition using method(s) standard in the natural gas industry.[2] **(R 336.1225, R 336.1702(a))**

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 keep, in a satisfactory manner, monthly and 12-month rolling time period Benzene emission calculation records in tons from EUCS1GLYDHY. The permittee shall keep all records on file at a location approved by the AQD District Supervisor and make them available to the Department upon request.[1] **(R 336.1225, 40 CFR, Part 63, Subpart HHH)**

2. The permittee shall calculate the pounds per hour Benzene emission rate with the condenser only, and with the condenser followed by the thermal oxidizer in series, from EUCS1GLYDHY once each hour, using a method acceptable to the AQD District Supervisor. If GRI-GLYCalc (Version 3.0 or higher) is used to calculate the emission rates, the inputs to the model shall be representative of actual operating conditions of EUCS1GLYDHY and shall include the most recent gas analysis data. The emissions calculations shall be available to the AQD no later than the 15th of the following month. The permittee must submit any request for a change in the calculation frequency to the AQD District Supervisor for review and approval. The permittee shall keep records of Benzene emission rates on file at a location approved by the AQD District Supervisor and make them available to the Department upon request.[1] **(R 336.1225)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the following at the frequency indicated.[2] **(R 336.1225, R 336.1702(a))**:
   a. Condenser exhaust gas temperature – continuous.
   b. Thermal incinerator bypass – daily.
   c. Thermal oxidizer exhaust gas temperature – continuous.

4. The permittee shall keep, in a satisfactory manner, the following records for EUCS1GLYDHY[2]: **(R 336.1225, R 336.1702(a))**
   a. At all times:
      i. Equipment specification records of the glycol circulation pump, including but not limited to the maximum circulation rate.
   b. When venting EUCS1GLYDHY through the condenser followed by the thermal oxidizer in series:
      i. Continuous records of the thermal oxidizer exhaust gas temperature
   c. When venting EUCS1GLYDHY through only the condenser (thermal oxidizer outage or malfunction):
      i. Continuous records of the condenser exhaust gas temperature
      ii. Hours that EUCS1GLYDHY is controlled by only the condenser.

5. 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. If no action was taken in response to an alarm event, the permittee will record the reason for no action.[2] **(R 336.1702(a))**

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. At least 30 days prior to the anticipated natural gas analysis date, the permittee shall submit analysis protocols to the AQD for review and approval. The protocol shall describe the method(s) to be used.[2] **(R 336.1225, R 336.1702(a))**

5. The permittee shall notify the AQD no less than 7 days prior to the anticipated natural gas analysis date.[2] **(R 336.1225, R 336.1702(a))**

6. The permittee shall submit a complete report of the natural gas analysis to the AQD within 60 days following the last date of the analysis.[2] **(R 336.1225, R 336.1702(a))**

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 011B (Condenser)	2[1]	44[1]	R 336.1225
2. SV 011A (Thermal Oxidizer)	20[1]	31[1]	R 336.1225

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).

EU CS1HHH
EMISSION UNIT CONDITIONS

DESCRIPTION

One glycol dehydration system operates in two modes (glycol injection and glycol absorption) to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydration system meets the definition in 40 CFR 63.1271 and was constructed prior to August 23, 2011 and must attain compliance with the requirements in 40 CFR, Part 63, Subpart HHH by October 15, 2015.

Emission Units: EUCS1GLYDHY

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT Condenser and/or Thermal Oxidizer.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. BTEX	Calculated using the equation in Appendix 7A	Annual	EUCS1GLYDHY	V.2, V.4, VI.9	**40 CFR 63.1275(b)(1)(iii)**

See Appendix 7A

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The process vent from EUCS1GLYDHY shall be vented to a control device or a combination of control devices through a closed-vent system. **(40 CFR 63.1275(b)(1)(iii)(A))**

2. The control device(s) shall be one of those specified below and must be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(f)(1))**
   a. A thermal oxidizer that reduces the concentration of BTEX to meet the emission limit in I.1, or the TOC or total HAP concentration in the exhaust gases at the outlet of the oxidizer is reduced to a level equal to or less than 20 ppmv on a dry basis corrected to 3 percent oxygen.
   b. A condenser or other non-destructive control device that is designed and operated to reduce the mass content of BTEX in the gases vented by 95 percent.

3. The permittee shall control HAP emissions from each GCG separator (flash tank) vent unless BTEX emissions from the reboiler vent and the flash tank are reduced to a level less than the limit in condition I.1. **(40 CFR 63.1275(c)(3))**

4. The permittee shall operate and maintain EUCS1GLYDHY, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1274(h))**

5. The permittee shall operate each control device in accordance with the requirements specified below: **(40 CFR 63.1281(f)(2))**
   a. Each control device used to comply with this subpart shall be operating at all times. More than one unit may be vented to a control device.
   b. For each control device monitored in accordance with the requirements of conditions VI.7, - 12, the permittee shall demonstrate compliance according to the requirements of VI.2 (§ 63.1282(e)).

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6. When using a condenser to demonstrate continuous compliance with emission limits the control device shall be operated at a maximum operating temperature established in accordance with the requirements of VI.8. When using a thermal oxidizer to demonstrate continuous compliance with emission limits the control device shall be operated at the minimum operating temperature established in accordance with the requirements of VI.8 or a minimum of 1400°F. (40 CFR 63.1282(e)(1))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The closed vent system shall be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(c), 40** CFR 63.1283(c)(2)(iii))
   a. The closed-vent system shall route all gases, vapors, and fumes emitted from the material in and emission unit to a control device that meets the requirements specified in condition III.2.
   b. The closed-vent system shall be designed and operated with no detectable emissions.
   c. Any bypass devices in the closed-vent system that could divert emissions from entering the control device shall be equipped with a flow indicator at the inlet to the bypass device that takes readings every 15 minutes, and that sounds an alarm when the bypass device is open; or the bypass device valve at the inlet to the bypass device shall be secured using a car-seal or lock and key.

2. Each continuous parameter monitoring system (CPMS) shall meet the following specifications and requirements: **(40 CFR 63.1283(d)(1))**
   a. Each CPMS shall measure data values at least once every hour and record either:
      i. Each measured data value; or
      ii Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

3. The permittee shall install a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified below. **(40 CFR 63.1283(d)(3))**
   a. For a thermal oxidizer, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature
   b. For a condenser, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

V. TESTING/SAMPLING

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

1. Determination of the actual flow rate of natural gas to EUCS1GLYDHY shall be made using either of the following procedures: **(40 CFR 63.1282(a)(1))**
   a. Install and operate a monitoring instrument that directly measures natural gas flow rate to EUCS1GLYDHY with an accuracy of ± 2 percent or better. The annual natural gas flow rate shall be converted to a daily average by dividing the annual flow rate by the number of days per year each EU processed natural gas.
   b. Document to the AQD's satisfaction, the actual annual average natural gas flowrate to EUCS1GLYDHY.
2. Determination of the actual average BTEX emissions from EUCS1GLYDHY with condenser and/or thermal oxidizer control device shall be made using the following procedure: **(40 CFR 63.1282(a)(2))**

   a. Use GRI-GLYCalc™, Version 3.0 or higher. Inputs to the model shall be representative of actual operating conditions of each glycol dehydration unit.

3. The permittee shall perform "no detectable emissions" testing for closed vent systems using the test methods and procedures specified in 40 CFR 63.1282(b). **(40 CFR 63.1282(b))**

4. If the permittee chooses to conduct a performance test to demonstrate that a control device meets the requirements of III.2 (40 CFR 1281(f)(1)) the permittee shall conduct emissions testing for compliance with the BTEX emission limit calculated using Equation 1 or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement using the following test methods and procedures: **(40 CFR 63.1282(d)(3)**
   a. Method 1 or 1A, 40 CFR, Part 60, Appendix A, as appropriate, shall be used for selection of the sampling sites. The sampling site shall be located at the outlet of the combustion device.
   b. The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR, Part 60, Appendix A, as appropriate.
   c. To determine compliance with the BTEX emission limit or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement, the permittee shall use one of the following methods: Method 18, 40 CFR, Part60, Appendix A; ASTM D64200-99 (Reapproved 2004); or any other method or data that have been validated according to the applicable procedures in Method 301, 40 CFR, Part 63, Appendix A.
   d. The permittee shall conduct performance tests according to the following schedule:
      i. An initial performance test shall be conducted no later than October 15, 2015.
      ii The first periodic performance test shall be conducted not later than 60 months after the initial performance test. Subsequent periodic performance tests shall be conducted at intervals no longer than 60 months following the previous periodic performance test or whenever a source desires to establish a new operating limit. Combustion control devices meeting either of the following criteria are not required to conduct periodic performance tests;
         A. Control device whose model is tested under, and meets the criteria of manufacturers performance test in 40 CFR 63.1282(g).
         B. A combustion control device demonstrating during the performance test that combustion zone temperature is an indicator of destruction efficiency and operates at a minimum temperature of 1400 degrees Fahrenheit.

5. As an alternative to the performance test referenced in V.4 the permittee may elect to use the procedures documented in the GRI report entitled "Atmospheric Rich/Lean method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1282(d)(5))**

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 maintain records of the annual facility natural gas throughput each year. **(40 CFR 63.1270(a)(3))**

2. The permittee shall continuously monitor and record the temperature on the thermal oxidizer or condenser and calculate the daily average temperature for each operating day. **(40 CFR 63.1282(e), 40 CFR 63.1283(d)(4))**
   a. Establish a site specific maximum (condenser) or minimum (thermal oxidizer) temperature to define the conditions at which the control device must be operated to continuously achieve compliance with the emission limit.
   b. Calculate the daily average of the temperature readings in accordance with condition VI.7.
   c. Compliance is achieved when the daily average of the temperature readings calculated under 2.b. is either equal to or greater than the minimum or equal to or less than the maximum monitoring value established under 2.a.

3. When using a condenser as the control device the permittee may demonstrate compliance with BTEX emission reductions by complying with the following requirements: **(40 CFR 63.1282(f))**

   a. The permittee shall establish a site-specific condenser performance curve according to the procedures specified in Condition VI.9.
   b. The permittee must calculate the daily average condenser outlet temperature in accordance with Condition VI.9.

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c. The permittee shall determine the condenser efficiency for the current operating day using the daily average condenser outlet temperature and the condenser performance curve.
d. At the end of each operating day the permittee shall calculate the 30-day average BTEX emission reduction from the condenser efficiencies for the preceding 30 operating days.
e. Compliance is achieved if the average BTEX emission reduction is equal to or greater than the minimum percent reduction established in Condition VI.9.

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4. For each closed-vent system, the permittee shall comply with the following requirements: **(40 CFR 63.1283(c)(2-4))**
   a. Except for parts of the closed-vent system or cover that are designated unsafe to inspect or difficult to inspect, each closed-vent system and each bypass device shall be inspected according to the procedures specified below according the following schedule:
      i. For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange):
         A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
         B. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices.
      ii. For closed-vent system components other than those specified in VI.4.a.i above:
         A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
         B. Conduct annual inspections to demonstrate that the components or connections operate with no detectable emissions.
         C. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices.
      iii. For each bypass device, except low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices, the permittee shall either:
         A. At the inlet to the bypass device that could divert the steam away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or
         B. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.
   b. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, except as provided in VI.4.c.
      i. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
      ii. Repair shall be completed no later than 15 calendar days after the leak is detected.
   c. Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in § 63.1271, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.

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5. Any parts of the closed-vent system or cover that are designated, as described below, as unsafe to inspect are exempt from the inspection requirements of Condition VI.4 if: **(40 CFR 63.1283(c)(5))**
   a. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with Condition VI.5.a.i or ii.
   b. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

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6. Any parts of the closed-vent system or cover that are designated, as described below, as difficult to inspect are exempt from the inspection requirements of Condition VI.4 if: **(40 CFR 63.1283(c)(6))**
   a. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
   b. The permittee has a written plan that requires inspection of the equipment at least once every 5 years.

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7. Using the data recorded by the monitoring system, except for inlet gas flowrate, the permittee must calculate the daily average value for each monitored operating parameter for each operating day. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average. **(40 CFR 63.1283(d)(4))**

8. For the control devices used to comply with 40 CFR, Part 63, Subpart HHH, the permittee shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the emission limits in Section I of FGMACTHHH. Each minimum or maximum operating parameter value shall be established as follows: **(40 CFR 63.1283(d)(5)(i))**
   a. If the permittee conducts performance tests to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by a condenser design analysis or control device manufacturer's recommendations or a combination of both.
   b. If the permittee uses a condenser design analysis to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value shall be established based on the condenser design analysis and may be supplemented by the condenser manufacturer's recommendations.
   c. If the permittee operates a control device where the performance test requirement was met under manufacturers' performance test to demonstrate that the control device achieves the applicable performance requirements, then the maximum inlet gas flowrate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.

9. When using condensers as the control device the permittee shall also establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established using the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc^{tm}, Version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1283(d)(5)(ii))**

10. A deviation for a control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified below being met. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified below, then a single excursion is determined to have occurred for the control device for that operating day. **(40 CFR 63.1283(d)(6)(i-iii))**
    a. When the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter.
    b. When the 30-day average condenser efficiency calculated according to the requirements of Condition VI.3.d is less than the identified 30-day required percent reduction.
    c. When the monitoring data are not available for at least 75 percent of the operating hours in a day.

11. A deviation occurs for a closed-vent system containing one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device when: **(40 CFR 63.1283(d)(6)(iv))**
    a. The flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.

    b. If the seal or closure mechanism has been broken, the bypass line valve position has a changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.

12. For each deviation, the permittee shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard. **(40 CFR 63.1283(d)(7))**

13. Nothing in conditions VI.7 through VI.12 shall be construed to allow or excuse a monitoring parameter deviation caused by any activity that violates other applicable provisions of this subpart. **(40 CFR 63.1283(d)(9))**

14. The permittee shall maintain the records specified in 40 CFR 63.10(b)(2). **(40 CFR 63.1284(b)(2))**

15. The permittee shall maintain the following records: **(40 CFR 63.1284(b)(4), 40 CFR 63.1284(g))**
    a. Continuous records of the equipment operating parameters specified to be monitored in Conditions VI.7, 9,
    b. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in Condition VI.7,
    c. For condensers using reduction efficiency for compliance, records of the annual 30-day rolling average condenser efficiency determined in Condition VI.3.d shall be kept in addition to the daily averages.
    d. The following records for a control device whose model is tested under the manufacturers' performance test:
        i. All visible emission readings and flow rate calculations made during the compliance determination
        ii. All hourly records and other recorded periods when the pilot flame is absent.
    e. Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.
    f. Where a seal or closure mechanism is used to comply with the closed vent bypass, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

16. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with Condition VI.5, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(5))**

17. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with Condition VI.6, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(6))**

18. The permittee shall maintain the following records for each inspection conducted in accordance with Condition VI.4 during which a leak or defect is detected. **(40 CFR 63.1284(b)(7))**
    a. The instrument identification numbers, operator name or initials, and identification of the equipment.
    b. The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.
    c. Maximum instrument reading measured by the method specified in Condition V.3 after the leak or defect is successfully repaired or determined to be non-repairable.
    d. "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.
    e. The name, initials, or other form of identification of the permittee (or designee) whose decision it was that repair could not be affected without a shutdown.
    f. The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.
    g. Dates of shutdowns that occur while the equipment is unrepaired.
    h. The date of successful repair of the leak or defect.

19. For each inspection conducted in accordance with Condition VI.4 during which no leaks or defects are detected, the permittee shall maintain a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected. **(40 CFR 63.1284(b)(8))**

20. The permittee shall maintain records of the occurrence and duration of each malfunction of process equipment or the air pollution control equipment and monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with Condition III.4 including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.1284(f))**

VII. REPORTING

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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 the notification of the planned date of a performance test and site–specific test plan at least 60 days before the test. **(40 CFR 63.1285(b)(3))**

5. The permittee shall submit a Notification of Compliance Status Report as required under § 63.9(h) within 180 days after October 15, 2015. In addition to the information required under § 63.9(h) the Notification of Compliance Status Report shall include the information specified in paragraphs 5.a. through l. of this section. If an owner or operator submits the required information at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information. **(40 CFR 63.1285(d))**
   a. If a closed-vent system and a control device other than a flare are used to comply with § 63.1274, the owner or operator shall submit the information in condition 5.a.iii. and the information in either paragraph 5.a.i. or ii.
      i. The condenser design analysis documentation specified in § 63.1282(d)(4) if the owner or operator elects to prepare a design analysis; or
      ii. If the owner or operator is required to conduct a performance test, the performance test results including the information specified in condition 5.a.ii.A. and B. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.1282(d)(3), and that the test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under § 63.1282(g), an electronic copy of the performance test results shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following Web site: *epa.gov/airquality/oilandgas/*.
         A. The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in § 63.1282(d)(3); and
         B. The value of the monitored parameters specified in § 63.1283(d), or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.
      iii. The results of the closed-vent system initial inspections performed according to the requirements in § 63.1283(c)(2)(i) and (ii).
   b. The owner or operator shall submit one complete test report for each test method used for a particular source.
      i. For additional tests performed using the same test method, the results specified in condition 5.a.ii. shall be submitted, but a complete test report is not required.
      ii. A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

   c. For each control device other than a flare used to meet the requirements of § 63.1274, the owner or operator shall submit the information specified in Condition 5.d.i. through iv. for each operating parameter required to be monitored in accordance with the requirements of § 63.1283(d).
      i. The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of § 63.1281(d)(1) or (e)(3)(ii).
      ii. An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in § 63.1283(d)(5). This explanation shall include any data and calculations used to

develop the value, and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of § 63.1281(d)(1), (e)(3)(ii), or (f)(1).

iii. A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

d. Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.

e. The owner or operator shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under 40 CFR, Part 63, Subpart HHH. Each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.

f. The owner or operator shall submit an analysis demonstrating whether an affected source is a major source using the maximum throughput calculated according to § 63.1270(a).

g. The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.

h. If the owner or operator installs a combustion control device model tested under the manufacturer's performance test procedures in § 63.1282(g), the Notification of Compliance Status Report shall include the data listed under § 63.1282(g)(8).

i. For each combustion control device model tested under § 63.1282(g), the information listed in paragraphs 5.i.i. through vi. of this section.

i. Name, address and telephone number of the control device manufacturer.
ii. Control device model number.
iii. Control device serial number.
iv. Date the model of control device was tested by the manufacturer.
v. Manufacturer's HAP destruction efficiency rating.
vi. Control device operating parameters, maximum allowable inlet gas flow rate.

6. The permittee shall prepare Periodic Reports in accordance with a. and b. below and submit them to the Administrator. **(40 CFR 63.1285(e))**

a. The permittee shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. The report shall include certification by a responsible official of truth, accuracy, and completeness.

b. The permittee shall include the following information and any other information as applicable in §63.1285(e)(2).

i. A description of all deviations as defined in Conditions VI.12-14 that have occurred during the 6-month reporting period, and the information described in §63.1285(e)(2)(ii).
ii. For each inspection conducted in accordance with Condition VI.5 during which a leak or defect is detected, the records described in Condition VI.21 must be included in the next Periodic Report.
iii. For each closed-vent system with a bypass line, records required under Condition VI.17.e and f.
iv. A statement identifying if there were no deviations during the reporting period.
v. Any change in compliance methods as described in §63.1282(e).
vi. The results of any periodic test conducted during the reporting period.

7. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report, whichever is sooner. The report shall include: **(40 CFR 63.1285(f))**

a. A brief description of the process change;
b. A description of any modification to standard procedures or quality assurance procedures;
c. Revisions to any of the information reported in the original Notification of Compliance Status Report under condition VII.5
d. Information required by the Notification of Compliance Status Report under Condition VII.5 for changes involving the addition of processes or equipment.

8. Within 60 days after the date of completing a performance test (defined in § 63.2) you must submit the results of the performance tests to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. All reports required by this subpart not subject to the above electronic reporting requirements must be sent to the Administrator at the appropriate address. The Administrator may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports in paper format. **(40 CFR 63.1285(g))**

9. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall determine major source status using the maximum annual facility natural gas throughput calculated according to 40 CFR 63.1270(a)(1)(i) through (a)(1)(iv). As an alternative to calculating the maximum natural gas throughput, the owner or operator of a new or existing source may use the facility design maximum natural gas throughput to estimate the maximum potential emissions. **(40 CFR 63.1270(a)(1))**

2. The permittee shall determine the maximum values for other parameters used to calculate potential emissions as the maximum over the same period for which maximum throughput is determined. These parameters shall be based on an annual average or the highest single measured value. For estimating maximum potential emissions from glycol dehydration units, the glycol circulation rate used in the calculation shall be the unit's maximum rate under its physical and operational design consistent with the definition of potential to emit in 40 CFR 63.2. **(40 CFR 63.1270(a)(4))**

3. A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements. Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in your approved site-specific monitoring plan. The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified below and in your site-specific monitoring plan. **(40 CFR 63.1283(d)(1)(ii-iv))**

   a. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
   b. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
   c. Equipment performance checks, system accuracy audits, or other audit procedures;
   d. Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1) and (c)(3);
   e. Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).
   f. The permittee must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months.

g. The permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

4. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart HHH, for Natural Gas Transmission and Storage Facilities by October 15, 2015. **(40 CFR, Part 63, Subparts A and HHH)**

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).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG CS1DDDDD	Stabilizer Heater (5 MMBtu/hr) and Boiler (3.5 MMBtu/hr)	EU CS1BOILER, EU CS1SHEATER, EU CS1WDHEATER
FG CS1CNDTANKS	Four condensate storage tanks controlled by a thermal oxidizer.	EU CS1TANK1, EU CS1TANK2, EU CS1TANK3, EU CS1TANK4

FG CS1DDDDD
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for existing Gas 1, (Natural Gas only) for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in 40 CFR 63.6(i).

Emission Units:

The collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within the units designed to burn gas 1 fuel subcategory as defined in 40 CFR 63.7575. At the time of permit renewal:

Less than 5 MMBtu/hr	EU CS1BOILER (3.5 MMBtu/hr)
Equal to or greater than 5 MMBtu/hr and less than 10 MMBtu/hr	EU CS1HEATER (5 MMBtu/hr)
Equal to or greater than 10 MMBtu/hr	EU CS1WDHEATER (15 MMBtu/hr)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(l))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is

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not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

2. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1. **(40 CFR 63.7500(b))**

3. The permittee must:
   a. Complete a tune-up every 5 years (61 months) for boilers/process heaters less than or equal to 5 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
   b. Complete a tune-up every 2 years (25 months) for boilers greater than 5 million Btu per hour and less than 10 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
   c. Complete a tune-up annually (13 months) for boilers greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 40 CFR 63.7515(d))**
   d. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**
   e. Follow the procedures described in SC IX 3.a through 3.f for all initial and subsequent tune ups.

   (40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**

2. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(a), (b), and (c))**

VII. REPORTING

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

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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. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.7, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC III.3.c, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC III.3.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC III.3.a, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report.

(40 CFR 63.7550(b))

a. When submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified in 40 CFR 63.7495.
(40 CFR 63.7550(b)(1))

b. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**

c. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**

d. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

5. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**

a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**

b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**

c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**

d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**

6. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**

a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

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See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must be in compliance with the applicable work practice standards. **(40 CFR 63.7505(a))**
2. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up within 30 days of startup by following the procedures described in SC IX 3.a through 3.f. **(40 CFR 63.7515(g))**
3. The permittee must demonstrate continuous compliance with the tune-up requirement by completing the following: **(40 CFR 63.7540(a))**
   a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
   d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
   e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
   f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
      i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
      ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
      iii. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
4. If the boiler or process heater has a heat input capacity of less than or equal to 5 million Btu per hour, the permittee may delay the burner inspection specified in SC IX 3.a until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**

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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).

Deleted: **DESCRIPTION**¶
¶
EU CS1HEATER (5 MMBtu/hr), EU CS1WDHEATER (15 MMBtu/hr), and EU CS1BOILER (3.5 MMBtu/hr) are subject to 40 CFR, Part 63, Subpart DDDDD National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. ¶
¶
Emission Unit: EU CS1SHEATER, EU CS1WDHEATER, and EU CS1BOILER.¶
¶
POLLUTION CONTROL EQUIPMENT: NA¶
¶
¶
I. EMISSION LIMIT(S)¶
¶
Pollutant ... [10]

FG CS1CNDTANKS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION: Four condensate storage tanks each with a maximum capacity of 16,800 gallons used to store stabilized condensate liquids.

Emission Unit: EU CS1TANK1, EU CS1TANK2, EU CS1TANK3, and EU CS1TANK4

POLLUTION CONTROL EQUIPMENT: A natural gas blanket is used to minimize VOC and Toxic air contaminates (TAC) emissions from the tanks. A thermal oxidizer is used to control hydrocarbon vapors resulting from breathing and working losses from the condensate storage tanks.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FG CS1CNDTANKS unless a malfunction abatement plan (MAP) as described in Rule 911(2), for thermal oxidizer control of VOC emissions from FG CS1CNDTANKS is implemented and maintained.

2. The permittee shall not operate FG CS1CNDTANKS unless the thermal oxidizer is operated with a minimum exhaust temperature of 1400°F. **(R 336.1213(3))**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the thermal oxidizer exhaust gas temperature on a continuous basis.[2] **(R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

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 keep, in a satisfactory manner, records of the thermal oxidizer exhaust gas temperature. The permittee shall keep all records on file at a location approved by the AQD district supervisor and make records available to the Department upon request.[2] **(R 336.1213(3), R 336.1702(a))**

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))**

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. SV011C (Thermal Oxidizer)	20[1]	31[1]	R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain a malfunction abatement plan approved by the AQD District Supervisor for FG CS1CNDTANKS.[2] **(R 336.1911)** The MAP shall, at a minimum, specify the following:
   i. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   ii. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   iii. A description of the corrective procedures or operational changes that shall be taken in the event of a THERMAL OXIDIZER malfunction.
   b. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable rules.

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).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-S3. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H_2S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO_2	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

ANR STORAGE COMPANY
Section 3 – Cold Springs 1 Compressor Station
Appendix 2-S3. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-S3. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-S3. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

Appendix 5-S3. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6-S3. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B7198-2008. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B7198-2008 is being reissued as Source-Wide PTI No. MI-PTI-B7198-2014.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
29-13	NA	EUCS1GLYDHY Allowed the two modes of operation of the glycol dehydrator to have two emission limits (one for each operating mode). Permitted federally enforceable limit on Benzene of less than 1TPY to ensure area source status.	EUCS1GLYDHY

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-B7198-2014.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
138-13A	201400093/ November 21, 2014	Increase in glycol recirculation rate from 720 gallons per hour to 960 gallons per hour. Lowered benzene emission limit from 0.995 pounds per hour to 0.43 pounds per hour. The benzene limit was changed to 0.02 pph with condenser followed by thermal oxidizer in series.	EUCS1GLYDHY

Appendix 7-S3. Emission Calculations

Appendix 7A. EU CS1HHH

The permittee shall use the following equation, or alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data to determine compliance with the emission limit of BTEX referenced in EU CS12HHH-S1, I.1, BTEX emissions (40 CFR 63.1275 equation 1).

$$EL_{BTEX} = 3.10x10^{-4} * Throughput * C_{i,BTEX} * 365 \frac{days}{yr} * \frac{1\,Mg}{1x10^{6}\,grams} \quad \text{Equation 1}$$

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

3.10×10^{-4} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day;

$C_{i,BTEX}$ = Annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

Appendix 8-S3. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

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