West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Appalachia Midstream Services, L.L.C.
Miller Compressor Station
R30-05100130-2024

Laura M. Crowder

Laura M. Crowder
Director, Division of Air Quality

Laura M. Crowder

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Date: 2024.12.10 15:20:29 -05'00'

Issued: December 10, 2024 • Effective: December 24, 2024
Expiration: December 10, 2029 • Renewal Application Due: June 10, 2029

Permit Number: **R30-05100130-2024**
Permittee: **Appalachia Midstream Services, L.L.C.**
Facility Name: **Miller Compressor Station**
Permittee Mailing Address: **100 Teletech Drive, Suite 2, Moundsville, WV 26041**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Bannen, Marshall County, West Virginia
Facility Mailing Address:	100 Teletech Drive, Suite 2, Moundsville, WV 26041
Telephone Number:	(304) 843-3125
Type of Business Entity:	L.L.C.
Facility Description:	The Miller Compressor Station receives low-pressure "wet" natural gas from local production wells via pipeline. The gas is compressed and dehydrated for delivery of high pressure "dry" natural gas via pipeline. Raw condensate and produced fluid/water are also stabilized at the facility before being sent off-site via tanker trucks.
SIC Codes:	1389
UTM Coordinates:	532.49 km Easting • 4,396.919 km Northing • Zone 17

Permit Writer: Sarah Barron

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Table of Contents

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
EUCE-2a	EPCE-2a	Compressor Engine 02a – Waukesha L7044 GSI	2023	1,900 HP	NSCR
EUCE-3	EPCE-3	Compressor Engine 03 – Waukesha L5794 GSI	2010	1,380 HP	NSCR
EUCE-4a	EPCE-4a	Compressor Engine 04a – Waukesha L7044 GSI	2023	1,900 HP	NSCR
EUCE-5	EPCE-5	Compressor Engine 05 – Waukesha L5794 GSI	2010	1,380 HP	NSCR
EUCE-6	EPCE-6	Compressor Engine 06 – Waukesha L5794 GSI	2010	1,380 HP	NSCR
EUCE-7	EPCE-7	Compressor Engine 07 – CAT G3516B	2012	1,380 HP	OxCat
EUCE-8	EPCE-8	Compressor Engine 08 – CAT G3516B	2012	1,380 HP	OxCat
EUCE-12	EPCE-12	Compressor Engine 12 – CAT G3516B	2017	1,380 HP	OxCat
EUCE-13	EPCE-13	Compressor Engine 13 – CAT G3516B	2017	1,380 HP	OxCat
EUCE-14	EPCE-14	Compressor Engine 14 – CAT G3516B	2017	1,380 HP	OxCat
EUCE-15	EPCE-15	Compressor Engine 15 – CAT G3516B	2017	1,380 HP	OxCat
EUBD	EPBD	Compressor Blowdown/Emergency Shutdown Tests	2010	574 events/yr	None
EUCRP	EPCRP	Compressor Rod Packing	2010	11 compressors	None
EUESU	EPESU	Engine Start-up	2010	11 engines	None
EUECC	EPECC	Engine Crankcase Emissions	2010	11 engines	None
EUGEN-1	EPGEN-1	Capstone C600 Microturbine Generator	2010	805 HP	None
EUDSV-1	EPDSV-1	Dehydrator 01 – Still Vent	2010	55 mmscfd	Cond/Recycle
EUDFT-1	EPDFT-1	Dehydrator 01 – Flash Tank			FLR/Recycle
EUDSV-2	EPDSV-2	Dehydrator 02 – Still Vent	2010	55 mmscfd	Cond/Recycle
EUDFT-2	EPDFT-2	Dehydrator 02 – Flash Tank			FLR/Recycle
EUDSV-3	EPDSV-3	Dehydrator 03 – Still Vent	2010	55 mmscfd	Cond/Recycle
EUDFT-3	EPDFT-3	Dehydrator 03 – Flash Tank			FLR/Recycle
EURBL-1	EPRBL-1	Reboiler 01	2010	1.0 mmBTU/hr	None
EURBL-2	EPRBL-2	Reboiler 02	2010	1.0 mmBTU/hr	None
EURBL-3	EPRBL-3	Reboiler 03	2010	1.0 mmBTU/hr	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
EUSTAB	EPSTAB	Condensate Stabilizer – Bypass to Flare	2010	120 hr/yr	FLR
EUOH-1	EPOH-1	Hot Oil Heater – Condensate Stabilizer	2010	3.35 mmBTU/hr	None
EUTK-1 to -12	EPTK-1 to -10	Storage Tanks 1 to 10 (Stabilized Condensate)	2010	400 bbl (each)	VRU
	EPWTK-11 to -12	Storage Tanks 11 to 12 (Produced Fluid/Water)			
EULOR	EPLOR	Stabilized Condensate Truck Loadout (LOR)	2010	273,750 bbl/yr of Stabilized Condensate	Carbon Canisters
		Produced Fluid/Water Truck Loadout (WLOR)		36,500 bbl/yr of Produced Fluid/Water	
EUPIG	EPPIG	Pigging Operations	2010	624 events/yr	None
APCFLARE	APCFLARE	Dehydrator/Stabilizer Flare	2010	5.0 mmBTU/hr	N/A
EUFUG	EPFUG	Piping and Equipment Leaks (Gas/Vapor)	2010	7,472 units	LDAR
		Piping and Equipment Leaks (Light Liquid/Oil)		2,271 units	

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2831G	January 16, 2024

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**PM_{10}**	Particulate Matter less than 10μm in diameter
CES	Certified Emission Statement	**pph**	Pounds per Hour
C.F.R. *or* CFR	Code of Federal Regulations	**ppm**	Parts per Million
CO	Carbon Monoxide	**PSD**	Prevention of Significant Deterioration
C.S.R. *or* CSR	Codes of State Rules	**psi**	Pounds per Square Inch
DAQ	Division of Air Quality	**SIC**	Standard Industrial Classification
DEP	Department of Environmental Protection	**SIP**	State Implementation Plan
FOIA	Freedom of Information Act	**SO_2**	Sulfur Dioxide
HAP	Hazardous Air Pollutant	**TAP**	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	**TPY**	Tons per Year
HP	Horsepower	**TRS**	Total Reduced Sulfur
lbs/hr *or* lb/hr	Pounds per Hour	**TSP**	Total Suspended Particulate
LDAR	Leak Detection and Repair	**USEPA**	United States Environmental Protection Agency
m	Thousand	**UTM**	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	**VEE**	Visual Emissions Evaluation
mm	Million	**VOC**	Volatile Organic Compounds
mmBtu/hr	Million British Thermal Units per Hour		
$mmft^3$/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour		
NA *or* N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.40]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a 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 permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Reserved.

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B.]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. **[45CSR§6-3.2.]**

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. **[40 C.F.R. §61.145(b) and 45CSR34]**

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. **[45CSR§4-3.1 State-Enforceable only.]**

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. **[45CSR§11-5.2]**

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. **[W.Va. Code § 22-5-4(a)(15)]**

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tpy of any single HAP or 25 tpy of any combination of HAPs. Compliance with this condition shall ensure that the facility is a minor HAP source.
[45CSR13, R13-2831, 4.1.2.]

3.1.10. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0. and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-2831, 4.1.3. and 6.1.8.]

3.1.11. Only those emission units/sources as identified in Table 1.0., with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility.
[45CSR13, R13-2831, 4.1.5.]

3.1.12. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.
[45CSR§17-3.1.]

3.2. Monitoring Requirements

3.2.1. None.

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4. or 45CSR§30-6.5., as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(15-16) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR13, R13-2831, 4.1.1.; 45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR13, R13-2831, 3.4.1.; 45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0., the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2831, 4.1.4.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31. **[45CSR§30-5.1.c.3.E.]**

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

US EPA:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air, RCRA, and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8. **[45CSR§30-8.]**

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified

in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Reserved.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or email. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. None.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

a. **45CSR21** – *Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds* – This rule applies to sources located in Putnam County, Kanawha County, Cabell County, Wayne County, and Wood County. The facility is located in Marshall County, and, therefore, the rule is inapplicable.

b. **45CSR27** – *To Prevent and Control the Emissions of Toxic Air Pollutants* – This rule does not apply to the Miller Compressor Station because, per 45CSR§27-2.4., the equipment used in the production and distribution of petroleum products is not considered a chemical processing unit, provided that such equipment does not produce or contact materials containing more than 5% benzene by weight.

c. **40 C.F.R. Part 60 Subparts D, Da, Db, and Dc** – *Standards of Performance for Steam Generators* – As there are no steam generating units with a maximum design heat input equal to or greater than 10 mmBTU/hr operated at the facility, Subparts D, Da, Db, and Dc do not apply to the Miller Compressor Station per 40 C.F.R. §§60.40(a), 60.40Da(a), 60.40b(a), and 60.40c(a), respectively.

d. 4**0 C.F.R. Part 60 Subparts K, Ka, and Kb** – *Standards of Performance for Storage Vessels for Petroleum Liquids/Volatile Organic Liquids* – Subparts K and Ka do not apply to the Miller Compressor Station because construction of the storage vessels used at the facility began after the applicability dates of each subpart (Subpart K – after June 11, 1973 and prior to May 19, 1978; Subpart Ka – after May 18, 1978 and prior to July 23, 1984). Per 40 C.F.R. §60.110b(a), Subpart Kb does not apply to the facility because each volatile organic liquid storage vessel has a capacity less than 75 m^3 (471.73 bbl).

e. **40 C.F.R. Part 60 Subpart GG** – *Standards of Performance for Stationary Gas Turbines* – Per 40 C.F.R. §60.330(a), Subpart GG does not apply because no stationary gas turbines with a heat input at peak load equal to or greater than 10 mmBTU/hr, based on the lower heating value, are operated at the facility.

f. **40 C.F.R. Part 60 Subpart KKK** – *Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants for which Construction, Reconstruction, or Modification Commenced after January 20, 1984 and on or before August 23, 2011* – The Miller Compressor Station is not a natural gas processing plant as defined in 40 C.F.R. §60.631 and, therefore, is not subject to the provisions of Subpart KKK.

g. **40 C.F.R. Part 60 Subpart LLL** – *Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing for which Construction, Reconstruction, or Modification Commenced after January 20, 1984 and on or before August 23, 2011* – Per 40 C.F.R. §60.640(a), Subpart LLL does not apply because no sweetening units are operated at the compressor station.

h. **40 C.F.R. Part 60 Subpart IIII** – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* – This subpart does not apply because only spark ignition internal combustion engines are operated at the Miller Compressor Station.

i. **40 C.F.R. Part 60 Subpart KKKK** – *Standards of Performance for Stationary Combustion Turbines* – Per 40 C.F.R. §60.4305(a), Subpart KKKK does not apply because no stationary combustion turbines with a heat input at peak load equal to or greater than 10 mmBTU/hr, based on the higher heating value of the fuel, are operated at the facility.

j. **40 C.F.R. Part 63 Subpart HHH** – *National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities* – The Miller Compressor Station is not a natural gas transmission and storage facility located prior to a local distribution company or to a final end user. Additionally, the facility is not a major source of HAP emissions. Therefore, per 40 C.F.R. §63.1270(a), the Miller Compressor Station is not subject to Subpart HHH.

k. **40 C.F.R. Part 63 Subpart YYYY** – *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines* – Per 40 C.F.R. §63.6080, Subpart YYYY does not apply because the Miller Compressor Station is not a major source of hazardous air pollutants.

l. **40 C.F.R. Part 63 Subpart DDDDD** – *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters* – Per 40 C.F.R. §63.7485, Subpart DDDDD does not apply because the Miller Compressor Station is not a major source of hazardous air pollutants.

m. **40 C.F.R. Part 63 Subpart CCCCCC** – *National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities* – The Miller Compressor Station is not a gasoline dispensing facility (GDF) as defined in 40 C.F.R. §63.11132. Therefore, per 40 C.F.R. § 63.11111(a), the Miller Compressor Station is not subject to Subpart CCCCCC.

n. **40 C.F.R. Part 63 Subpart JJJJJJ** – *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* – Per 40 C.F.R. §63.11195(e), gas-fired boilers are exempt from the standards of Subpart JJJJJJ. Therefore, the natural gas-fired reboilers (EURBL-1 through EURBL-3) operated at the Miller Compressor Station are not subject to Subpart JJJJJJ.

4.0 Compressor Engines and Microturbine [Emission Point IDs: EPCE-2a, EPCE-3, EPCE-4a, EPCE-5 to EPCE-8, & EPCE-12 to EPCE-15 and EPGEN-1]

4.1. Limitations and Standards

4.1.1. a. Maximum emissions from each of the 1,380 HP natural gas-fired reciprocating compressor engines equipped with NSCR, Waukesha L5794 GSI (EPCE-3, EPCE-5, EPCE-6), shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	1.48	6.48
Carbon Monoxide	1.81	7.92
Volatile Organic Compounds (includes Formaldehyde)	0.17	0.76
Formaldehyde	0.02	0.10

b. Maximum emissions from each of the 1,900 HP natural gas-fired reciprocating compressor engines equipped with NSCR, Waukesha L7044 GSI (EPCE-2a, EPCE-4a), shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	1.26	5.50
Carbon Monoxide	2.47	10.82
Volatile Organic Compounds (includes Formaldehyde)	0.20	0.85
Formaldehyde	0.05	0.22

c. Maximum emissions from each of the 1,380 HP natural gas-fired reciprocating compressor engines equipped with Oxidation Catalysts, CAT G3516B (EPCE-7, EPCE-8, EPCE-12, EPCE-13, EPCE-14, and EPCE-15), shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	1.52	6.66
Carbon Monoxide	1.52	6.66
Volatile Organic Compounds (includes Formaldehyde)	1.19	5.20
Formaldehyde	0.31	1.38

[45CSR13, R13-2831, 5.1.1.]

4.1.2. Maximum emissions from the 805 HP natural gas-fired microturbine generator, Capstone C600 (EPGEN-1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	0.48	2.10
Carbon Monoxide	1.32	5.78
Volatile Organic Compounds (includes Formaldehyde)	0.14	0.61
Formaldehyde	0.02	0.09

[45CSR13, R13-2831, 5.1.2.]

4.1.3. The emission limitations specified in Conditions 4.1.1. and 4.1.2. shall apply at all times except during periods of start-up and shutdown provided that the duration of these periods does not exceed 30 minutes per occurrence. The permittee shall operate the engines in a manner consistent with good air pollution control practices for minimizing emissions at all times, including periods of start-up and shutdown. The emissions from start-up and shutdown shall be included in the twelve (12) month rolling total of emissions. The permittee shall comply with all applicable start-up and shutdown requirements in accordance with 40 C.F.R. Part 60 Subpart JJJJ and 40 C.F.R. Part 63 Subpart ZZZZ.
[45CSR13, R13-2831, 5.1.3.]

4.1.4. Maximum aggregate engine crankcase emissions from the engines (EPCE-2a, EPCE-3, EPCE-4a, EPCE-5 to EPCE-8, and EPCE-12 to EPCE-15) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	0.04	0.20
Carbon Monoxide	0.24	1.07
Volatile Organic Compounds (includes Formaldehyde)	0.09	0.38
Formaldehyde	0.04	0.17

[45CSR13, R13-2831, 5.1.4.]

4.1.5. Requirements for Use of Catalytic Reduction Devices

a. Rich-burn natural gas-fired compressor engines (EPCE-2a, EPCE-3, EPCE-4a, EPCE-5, and EPCE-6) equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air-to-fuel ratio controller to ensure emissions of regulated pollutants do not exceed the emission limit listed in Conditions 4.1.1.a. and 4.1.1.b. for any engine/NSCR combination under varying load. The closed-loop, automatic air-to-fuel ratio controller shall control a fuel metering valve to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 2%.

b. Lean-burn natural gas engines (EPCE-7, EPCE-8, EPCE-12, EPCE-13, EPCE-14, and EPCE-15) equipped with oxidation catalyst air pollution control devices shall be fitted with a closed-loop automatic air-to-fuel ratio feedback controller to ensure emissions of regulated pollutants do not exceed the emission limit listed in Condition 4.1.1.c. for any engine/oxidation catalyst combination under varying load. The closed-loop, automatic air-to-fuel ratio controller shall control a fuel metering valve to ensure a lean-rich mixture.

c. No person shall knowingly:

1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of this permit;

2. Install any part or component when the principal effect of the part or component is to bypass, defeat, or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of this permit; or

3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

d. The permittee shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications; a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the permittee shall also check for thermal deactivation of the catalyst before normal operations are resumed.

e. The permittee shall follow a written operation and maintenance plan that provides the periodic and annual maintenance requirements.

[45CSR13, R13-2831, 5.1.5.]

4.1.6. The provisions of 40 C.F.R. Part 60 Subpart JJJJ are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) (EPCE-2a, EPCE-3, EPCE-4a, EPCE-5 to EPCE-8, and EPCE-12 to EPCE-15) as specified below. For the purposes of Subpart JJJJ, the date that construction commences is the date the engine is ordered by the permittee.

a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

1. On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

b. Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006.

[45CSR13, R13-2831, 11.1.1.; 45CSR16; 40 C.F.R. §§60.4230(a), (a)(4), (a)(4)(i), and (a)(5)]

4.1.7. The following emission standards from Table 1 to Subpart JJJJ of Part 60 apply to the compressor engines EPCE-2a, EPCE-3, EPCE-4a, EPCE-5 to EPCE-8, and EPCE-12 to EPCE-15:

Engine Type and Fuel	Maximum Engine Power	Manufacture Date	Emission Standards[1]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_X	CO	VOC[2]	NO_X	CO	VOC[2]
Non-Emergency SI Natural Gas	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60

[1] Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O_2.

[2] For the purposes of Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[45CSR13, R13-2831, 11.1.2.; 45CSR16; 40 C.F.R. §60.4233(e); Table 1 to Subpart JJJJ of Part 60]

4.1.8. The permittee shall operate and maintain the stationary SI ICEs (EPCE-2a, EPCE-3, EPCE-4a, EPCE-5 to EPCE-8, and EPCE-12 to EPCE-15) so that each engine achieves the emission standards as required in 40 C.F.R. §60.4233 over the entire life of the engine.
[45CSR13, R13-2831, 11.1.3.; 45CSR16; 40 C.F.R. §60.4234]

4.1.9. After July 1, 2009, the permittee may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in 40 C.F.R. §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.
[45CSR13, R13-2831, 11.2.1.; 45CSR16; 40 C.F.R. §60.4236(b)]

4.1.10. The requirements of 40 C.F.R. §60.4236 do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.
[45CSR13, R13-2831, 11.2.2.; 45CSR16; 40 C.F.R. §60.4236(e)]

4.1.11. Owners and operators of stationary SI natural gas-fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40 C.F.R. §60.4233.
[45CSR16; 40 C.F.R. §60.4243(e)]

4.1.12. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The air-to-fuel ratio controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
[45CSR16; 40 C.F.R. §60.4243(g)]

4.1.13. If a new or reconstructed stationary RICE located at an area source of HAP emissions is started up after January 18, 2008, the permittee must comply with the applicable emission limitations and operating limitations in 40 C.F.R. Part 63 Subpart ZZZZ upon startup of the affected source.
[45CSR13, R13-2831, 12.1.1.; 45CSR34; 40 C.F.R. §63.6595(a)(7)]

4.1.14. **Stationary RICE subject to Regulations under 40 C.F.R. Part 60.** An affected source that meets any of the criteria in 40 C.F.R. §§63.6590(c)(1) through (c)(7) must meet the requirements of 40 C.F.R. Part 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60 Subpart JJJJ for spark ignition engines. No further requirements apply for such engines under Subpart ZZZZ.

The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of 40 C.F.R. Part 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60 Subpart JJJJ.

[45CSR13, R13-2831, 12.1.2.; 45CSR34; 40 C.F.R. §§63.6590(c) and (c)(1)]

4.1.15. Maximum aggregate rod packing emissions from the engines EPCE-2a, EPCE-3, EPCE-4a, EPCE-5 to EPCE-8, and EPCE-12 to EPCE-15 shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Volatile Organic Compounds	4.98	21.81

[45CSR13, R13-2831, 13.1.1.]

4.2. Monitoring Requirements

4.2.1. Catalytic Oxidizer Control Devices

a. The permittee shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications; a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the permittee shall check for thermal deactivation of the catalyst before normal operations are resumed.

b. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

1. Maintaining proper operation of the automatic air-to-fuel ratio controller or automatic feedback controller.

2. Following operating and maintenance recommendations of the catalyst element manufacturer.

[45CSR13, R13-2831, 5.2.1.]

4.2.2. The permittee shall comply with the emission standards specified in 40 C.F.R. §60.4233(e). The permittee must demonstrate compliance according to the method specified below.

a. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(e) and according to the requirements specified in §60.4244, as applicable, and according to paragraph a.1. of this condition.

1. For stationary SI internal combustion engines greater than 500 HP, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[45CSR13, R13-2831, 11.3.1.; 45CSR16; 40 C.F.R. §§60.4243(b), (b)(2), and (b)(2)(ii)]

4.3. Testing Requirements

4.3.1. In order to demonstrate compliance with Conditions 4.1.1. and 4.2.2., the permittee shall conduct performance tests following the procedures in paragraphs (a) through (f) of this condition.

a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 C.F.R. §60.8 under the specific conditions that are specified by Table 2 to Subpart JJJJ of Part 60.

b. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If the stationary SI internal combustion engine is non-operational, the permittee does not need to startup the engine solely to conduct a performance test; however, the permittee must conduct the performance test immediately upon startup of the engine.

c. The permittee must conduct three separate test runs for each performance test required in this condition, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and at least 1 hour.

d. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP-hr} \quad \text{Eq. 1}$$

Where:
ER = Emission rate of NO_X in g/HP-hr
C_d = Measured NO_X concentration in parts per million by volume (ppmv)
1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20° Celsius
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis
T = Time of test run, in hours
HP-hr = Brake work of the engine, in horsepower-hour (HP-hr)

e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this condition:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP-hr} \quad \text{Eq. 2}$$

Where:
ER = Emission rate of CO in g/HP-hr
C_d = Measured CO concentration in ppmv
1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20° Celsius
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis
T = Time of test run, in hours
HP-hr = Brake work of the engine, in HP-hr

f. For the purposes of 40 C.F.R. Part 60 Subpart JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this condition:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP-hr} \quad \text{Eq. 3}$$

Where:
ER = Emission rate of VOC in g/HP-hr
C_d = VOC concentration measured as propane in ppmv
1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20° Celsius
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis
T = Time of test run, in hours
HP-hr = Brake work of the engine, in HP-hr

g. If the permittee chooses to measure VOC emissions using either Method 18 of 40 C.F.R. Part 60, Appendix A or Method 320 of 40 C.F.R. Part 63, Appendix A, then the permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this condition. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this condition.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad \text{Eq. 4}$$

Where:
RF_i = Response factor of compound i when measured with EPA Method 25A
C_{Mi} = Measured concentration of compound i in ppmv as carbon
C_{Ai} = True concentration of compound i in ppmv as carbon

$$C_{icorr} = RF_i \times C_{imeas} \quad \text{Eq. 5}$$

Where:
C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon

$$C_{Peq} = 0.6098 \times C_{icorr} \quad \text{Eq. 6}$$

Where:
C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM

[45CSR13, R13-2831, 5.3.1. and 11.4.1.; 45CSR16; 40 C.F.R. §60.4244]

4.4. Recordkeeping Requirements

4.4.1. To demonstrate compliance with Condition 4.1.5., the permittee shall maintain records of maintenance performed on each engine.
[45CSR13, R13-2831, 5.4.1.]

4.4.2. To demonstrate compliance with Condition 4.2.1., the permittee shall maintain records of all catalytic reduction device maintenance.
[45CSR13, R13-2831, 5.4.2.]

4.4.3. The permittee shall maintain a copy of the site-specific maintenance plan or manufacturer maintenance plan.
[45CSR13, R13-2831, 5.4.3.]

4.4.4. All records required by Conditions 4.4.1. through 4.4.3. shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR13, R13-2831, 5.4.4.]

4.4.5. The permittee must keep records of the information in paragraphs a.1. through a.3. of this condition.

a. All notifications submitted to comply with 40 C.F.R. Part 60 Subpart JJJJ and all documentation supporting any notification.

b. Maintenance conducted on the engine.

c. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 C.F.R. §60.4243(a)(2), documentation that the engine meets the emission standards.

[45CSR13, R13-2831, 11.5.1.a.; 45CSR16; 40 C.F.R. §§60.4245(a), (a)(1), (a)(2), and (a)(4)]

4.5. Reporting Requirements

4.5.1. For SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40 C.F.R. §60.4231, the permittee must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs a. through e. of this condition.

a. Name and address of the owner or operator;

b. The address of the affected source;

c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

d. Emission control equipment; and

e. Fuel used.

[45CSR13, R13-2831, 11.5.1.c.; 45CSR16; 40 C.F.R. §60.4245(c)]

4.5.2. For each stationary SI ICE that is subject to performance testing, the permittee must submit a copy of each performance test as conducted in 40 C.F.R. §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference – see 40 C.F.R. §60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.
[45CSR13, R13-2831, 11.5.1.d.; 45CSR16; 40 C.F.R. §60.4245(d)]

4.6. Compliance Plan

4.6.1. None.

5.0 40 C.F.R. Part 60 Subparts OOOO and OOOOa Requirements for the Reciprocating Compressors Associated with EUCE-2a, EUCE-4a, EUCE-7, EUCE-8, and EUCE-12 to EUCE-15

5.1. Limitations and Standards

5.1.1. At all times, including periods of startup, shutdown, and malfunction, the permittee shall maintain and operate any affected facility under 40 C.F.R. Part 60 Subpart OOOO or Subpart OOOOa, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown, and malfunctions provided for in 40 C.F.R. §60.8(c) do not apply to Subpart OOOOa.
[45CSR16; 40 C.F.R. §60.5370(b); 40 C.F.R. §60.5370a(b)]

5.1.2. The permittee must comply with the standards in paragraphs a. through d. of this condition for the reciprocating compressor affected facilities EUCE-7 and EUCE-8.

a. The permittee must replace the reciprocating compressor rod packing according to either paragraph a.1. or 2. of this condition, or the permittee must comply with paragraph a.3. of this condition.

1. Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of the reciprocating compressor affected facility or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

2. Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the rod packing has not yet been replaced.

3. Collect the emissions from the rod packing using a rod packing emissions collection system which operates under negative pressure and route the rod packing emissions to a process through a closed vent system that meets the requirements of 40 C.F.R. §60.5411(a).

b. The permittee must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by Condition 5.2.1.

c. The permittee must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by Condition 5.2.2.

d. The permittee must perform the required recordkeeping and reporting as required by Conditions 5.4.1. and 5.5.1., respectively.

[45CSR13, R13-2831, 13.1.2.; 45CSR16; 40 C.F.R. §60.5385]

5.1.3. The permittee must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the standards in paragraphs a. through d. of this condition for the reciprocating compressor affected facilities EUCE-2a, EUCE-4a, and EUCE-12 to EUCE-15.

a. The permittee must replace the reciprocating compressor rod packing according to either paragraph a.1. or 2. of this condition, or the permittee must comply with paragraph a.3. of this condition.

1. On or before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of the reciprocating compressor affected facility or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

2. Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the rod packing has not yet been replaced.

3. Collect the methane and VOC emissions from the rod packing using a rod packing emissions collection system that operates under negative pressure and route the rod packing emissions to a process through a closed vent system that meets the requirements of 40 C.F.R. §§60.5411a(a) and (d).

b. The permittee must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by Condition 5.2.3.

c. The permittee must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by Condition 5.2.4.

d. The permittee must perform the reporting as required by Condition 5.5.2. and the recordkeeping as required by Condition 5.4.2., as applicable.

[45CSR13, R13-2831, 13.1.3.; 45CSR16; 40 C.F.R. §60.5385a]

5.2. Monitoring Requirements

5.2.1. The permittee must determine initial compliance with the standards for each affected facility using the requirements in this condition. The initial compliance period begins upon initial startup and ends no later than one year after the initial startup date for the affected facility. The initial compliance period may be less than one full year.

To achieve initial compliance with the standards for the reciprocating compressor affected facilities EUCE-7 and EUCE-8, the permittee must comply with paragraphs a. through d. of this condition.

a. If complying with paragraphs a.1. or 2. of Condition 5.1.2., during the initial compliance period, the permittee must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.

b. If complying with paragraph a.3. of Condition 5.1.2., the permittee must operate the rod packing emissions collection system under negative pressure and route emissions to a process through a closed vent system that meets the requirements of 40 C.F.R. §60.5411(a).

c. The permittee must submit the initial annual report for the reciprocating compressor as required in Condition 5.5.1.

d. The permittee must maintain the records as specified in Condition 5.4.1. for each reciprocating compressor affected facility.

[45CSR13, R13-2831, 13.2.1.; 45CSR16; 40 C.F.R. §60.5410(c)]

5.2.2. For each reciprocating compressor affected facility complying with Condition 5.1.2.a.1. or a.2., the permittee must demonstrate continuous compliance according to paragraphs a. through c. of this condition. For each reciprocating compressor affected facility complying with Condition 5.1.2.a.3., the permittee must demonstrate continuous compliance according to paragraph d. of this condition. **(EUCE-7 and EUCE-8)**

a. The permittee must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

b. The permittee must submit the annual report as required in Condition 5.5.1. and maintain records as required in Condition 5.4.1.

c. The permittee must replace the reciprocating compressor rod packing before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

d. The permittee must operate the rod packing emissions collection system under negative pressure and continuously comply with the closed vent requirements in 40 C.F.R. §§60.5416(a) and (b).

[45CSR13, R13-2831, 13.3.1.; 45CSR16; 40 C.F.R. §60.5415(c)]

5.2.3. The permittee must determine initial compliance with the standards for each affected facility using the requirements in this condition. The initial compliance period begins upon initial startup and ends no later than one year after the initial startup date for the affected facility. The initial compliance period may be less than one full year.

To achieve initial compliance with the standards for the reciprocating compressor affected facilities EUCE-2a, EUCE-4a, and EUCE-12 to EUCE-15, the permittee must comply with paragraphs a. through d. of this condition.

a. If complying with paragraphs a.1. or 2. of Condition 5.1.3., during the initial compliance period, the permittee must continuously monitor the number of hours of operation or track the number of months since initial startup or since the last rod packing replacement, whichever is later.

b. If complying with paragraph a.3. of Condition 5.1.3., the permittee must operate the rod packing emissions collection system under negative pressure and route emissions to a process through a closed vent system that meets the requirements of 40 C.F.R. §§60.5411a(a) and (d).

c. The permittee must submit the initial annual report for the reciprocating compressor as required in Condition 5.5.2.

d. The permittee must maintain the records as specified in Condition 5.4.2. for each reciprocating compressor affected facility.

[45CSR13, R13-2831, 13.2.2.; 45CSR16; 40 C.F.R. §60.5410a(c)]

5.2.4. For each reciprocating compressor affected facility complying with Condition 5.1.3.a.1. or a.2., the permittee must demonstrate continuous compliance according to paragraphs a. through c. of this condition. For each reciprocating compressor affected facility complying with Condition 5.1.3.a.3., the permittee must demonstrate continuous compliance according to paragraph d. of this condition. **(EUCE-2a, EUCE-4a, and EUCE-12 to EUCE-15)**

a. The permittee must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup or since the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

b. The permittee must submit the annual reports as required in Conditions 5.5.2.a. and b. and maintain records as required in Condition 5.4.2.a.

c. The permittee must replace the reciprocating compressor rod packing on or before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

d. The permittee must operate the rod packing emissions collection system under negative pressure and continuously comply with the cover and closed vent requirements in 40 C.F.R. §§60.5416a(a) and (b).

[45CSR13, R13-2831, 13.3.2.; 45CSR16; 40 C.F.R. §60.5415a(c)]

5.3. Testing Requirements

5.3.1. None.

5.4. Recordkeeping Requirements

5.4.1. For the reciprocating compressor affected facilities EUCE-7 and EUCE-8, the permittee must maintain the records identified as specified in 40 C.F.R. §60.7(f) and in this condition. All records required by 40 C.F.R. Part 60 Subpart OOOO must be maintained either on-site or at the nearest local field office for at least five years.

a. For each reciprocating compressor affected facility, the permittee must maintain the records in paragraphs a.1. through 3. of this condition.

1. Records of the cumulative number of hours of operation or number of months since initial startup or the previous replacement of the reciprocating compressor rod packing, whichever is later.

2. Records of the date and time of each reciprocating compressor rod packing replacement, or date of installation of a rod packing emissions collection system and closed vent system as specified in paragraph a.3. of Condition 5.1.2.

3. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in Condition 5.1.2.

b. Records of each closed vent system inspection required under 40 C.F.R. §§60.5416(a)(1) and (2) for reciprocating compressors.

c. A record of each cover inspection required under 40 C.F.R. §60.5416(a)(3) for reciprocating compressors.

d. If the reciprocating compressors are subject to the bypass requirements of 40 C.F.R. §60.5416(a)(4), a record of each inspection or a record of each time the key is checked out or a record of each time the alarm is sounded.

e. If the reciprocating compressors are subject to the closed vent system no detectable emissions requirements of 40 C.F.R. §60.5416(b), a record of the monitoring conducted in accordance with 40 C.F.R. §60.5416(b).

[45CSR16; 40 C.F.R. §§60.5420(c), (c)(3), and (c)(6) to (c)(9)]

5.4.2. For the reciprocating compressor affected facilities EUCE-2a, EUCE-4a, and EUCE-12 to EUCE-15, the permittee must maintain the records identified as specified in 40 C.F.R. §60.7(f) and in this condition. All records required by 40 C.F.R. Part 60 Subpart OOOOa must be maintained either on-site or at the nearest local field office for at least five years. Any records required to be maintained by Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.

a. For each reciprocating compressor affected facility, the permittee must maintain the records in paragraphs a.1. through 3. of this condition.

1. Records of the cumulative number of hours of operation or number of months since initial startup or since the previous replacement of the reciprocating compressor rod packing, whichever is later. Alternatively, a statement that emissions from the rod packing are being routed to a process through a closed vent system under negative pressure.

2. Records of the date and time of each reciprocating compressor rod packing replacement, or date of installation of a rod packing emissions collection system and closed vent system as specified in Condition 5.1.3.a.3.

3. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in Condition 5.1.3., including the date and time the deviation began, duration of the deviation, and a description of the deviation.

b. Records of each closed vent system inspection required under 40 C.F.R. §§60.5416a(a)(1) and (2) and (b) for reciprocating compressors as required in paragraphs b.1. through 3. of this condition.

1. A record of each closed vent system inspection or no detectable emissions monitoring survey. The permittee must include an identification number for each closed vent system (or other unique identification description selected by the permittee) and the date of the inspection.

2. For each defect or leak detected during inspections required by 40 C.F.R. §§60.5416a(a)(1) and (2), (b), (c)(1), or (d), the permittee must record the location of the defect or leak, a description of the defect or the maximum concentration reading obtained if using Method 21 of Appendix A-7 of 40 C.F.R. Part 60, the date of detection, and the date the repair to correct the defect or leak is completed.

3. If repair of the defect is delayed as described in 40 C.F.R. §60.5416a(b)(10), the permittee must record the reason for the delay and the date the permittee expects to complete the repair.

c. A record of each cover inspection required under 40 C.F.R. §60.5416a(a)(3) for reciprocating compressors as required in paragraphs c.1. through 3. of this condition.

1. A record of each cover inspection. The permittee must include an identification number for each cover (or other unique identification description selected by the permittee) and the date of the inspection.

2. For each defect detected during inspections required by 40 C.F.R. §§60.5416a(a)(3) or (c)(2), the permittee must record the location for the defect, a description of the defect, the date of detection, the corrective action taken the repair the defect, and the date the repair to correct the defect is completed.

3. If repair of the defect is delayed as described in 40 C.F.R. §§60.5416a(b)(10) or (c)(5), the permittee must record the reason for the delay and the date they expect to complete the repair.

d. If subject to the bypass requirements of 40 C.F.R. §60.5416a(a)(4) for reciprocating compressors, the permittee must prepare and maintain a record of each inspection or a record of each time the key is checked out or a record of each time the alarm is sounded.

e. For each closed vent system routing to a control device or process, the records of the assessment conducted according to 40 C.F.R. §60.5411a(d):

1. A copy of the assessment conducted according to 40 C.F.R. §60.5411a(d)(1);

2. A copy of the certification according to §60.5411a(d)(1)(i); and

3. The owner or operator shall retain copies of all certifications, assessments, and any related records for a period of five years and make them available if directed by the delegated authority.

[45CSR13, R13-2831, 13.4.6.; 45CSR16; 40 C.F.R. §§60.5420a(c), (c)(3), (c)(6) to (c)(8), and (c)(17)]

5.5. Reporting Requirements

5.5.1. For the reciprocating compressor affected facilities EUCE-7 and EUCE-8, the permittee must submit annual reports containing the information specified in this condition. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to Condition 5.2.1. Subsequent annual reports are due no later than the same date each year as the initial annual report. The permittee may submit one report for multiple affected facilities provided the report contains all the information required as specified in 40 C.F.R. §§60.5420(b)(1) through (6). Annual reports may coincide with Title V reports as long as all the required elements of the annual report are included. The permittee may arrange with the

Administrator a common schedule on which reports required by 40 C.F.R. Part 60 may be submitted as long as the schedule does not extend the reporting period.

a. The general information specified below:

1. The company name and address of the affected facility.

2. An identification of each affected facility being included in the annual report.

3. Beginning and ending dates of the reporting period.

4. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

b. For each reciprocating compressor affected facility, the information specified below:

1. The cumulative number of hours of operation or the number of months since initial startup or since the previous reciprocating compressor rod packing replacement, whichever is later.

2. Records of deviations specified in Condition 5.4.1.a.3. that occurred during the reporting period.

[45CSR13, R13-2831, 13.4.3. and 13.4.5.; 45CSR16; 40 C.F.R. §60.5420(b), (b)(1), and (b)(4)]

5.5.2. For the reciprocating compressors EUCE-2a, EUCE-4a, and EUCE-12 to EUCE-15, the permittee must submit annual reports containing the information specified in this condition. The permittee must submit annual reports following the procedure specified in paragraph c. of this condition. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to Condition 5.2.3. Subsequent annual reports are due no later than the same date each year as the initial annual report. The permittee may submit one report for multiple affected facilities provided the report contains all the information required as specified in this condition. Annual reports may coincide with Title V reports as long as all the required elements of the annual report are included. The permittee may arrange with the Administrator a common schedule on which reports required by 40 C.F.R. Part 60 may be submitted as long as the schedule does not extend the reporting period.

a. The general information specified in paragraphs a.1. through 4. of this condition is required for all reports.

1. The company name, facility site name associated with the affected facility, and address of the affected facility.

2. An identification of each affected facility being included in the annual report.

3. Beginning and ending dates of the reporting period.

4. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

b. For each reciprocating compressor affected facility, the information specified in paragraphs b.1. through 3. of this condition.

1. The cumulative number of hours of operation or the number of months since initial startup or since the previous reciprocating compressor rod packing replacement, whichever is later. Alternatively, a statement that emissions from the rod packing are being routed to a process through a closed vent system under negative pressure.

2. If applicable, for each deviation that occurred during the reporting period and recorded as specified in Condition 5.4.2.a.3., the date and time the deviation began, duration of the deviation and a description of the deviation.

3. If required to comply with Condition 5.1.3.a.3., the information in paragraphs b.3.i. through iii. of this condition.

i. Dates of each inspection required under 40 C.F.R. §§60.5416a(a) and (b);

ii. Each defect or leak identified during each inspection, and date of repair or date of anticipated repair if repair is delayed; and

iii. Date and time of each bypass alarm or each instance the key is checked out if the reciprocating compressor affected facility is subject to the bypass requirements of 40 C.F.R. §60.5416a(a)(4).

c. The permittee must submit reports to the EPA via CEDRI, except as outlined in 40 C.F.R. §60.5420a(b)(11). CEDRI can be accessed through the EPA's CDX (https://cdx.epa.gov/). The permittee must use the appropriate electronic report template on the CEDRI website for Subpart OOOO (https://www.epa.gov/electronic-reporting-air-emissions/cedri/).

d. The permittee must submit the certification signed by the qualified professional engineer or in-house engineer according to 40 C.F.R. §60.5411a(d) for each closed vent system routing to a control device or process.

[45CSR13, R13-2831, 13.4.4. and 13.4.6.; 45CSR16; 40 C.F.R. §§60.5420a(b), (b)(1), (b)(4), (b)(11), and (b)(12)]

5.6. Compliance Plan

5.6.1. None.

6.0 40 C.F.R. Part 60 Subpart OOOOa Requirements for Fugitive Emissions Components

6.1. Limitations and Standards

6.1.1. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 C.F.R. §60.8(c) do not apply to Subpart OOOOa.
[45CSR16; 40 C.F.R. §60.5370a(b)]

6.1.2. For each affected facility under 40 C.F.R. §60.5365a(j), the permittee must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the requirements of paragraphs a. through j. of this condition. The requirements in this condition are independent of the closed vent system and cover requirements in §60.5411a. Alternatively, the permittee may comply with the requirements of §60.5398b, including the notification, recordkeeping, and reporting requirements outlined in §60.5424b. For the purpose of Subpart OOOOa, compliance with the requirements in §60.5398b will be deemed compliance with §60.5397a. When complying with §60.5398b, the definitions in §60.5430b shall apply for those activities conducted under §60.5398b.

a. The permittee must monitor all fugitive emissions components, as defined in 40 C.F.R. §60.5430a, in accordance with paragraphs b. through g. of this condition. The permittee must repair all sources of fugitive emissions in accordance with paragraph h. of this condition. The permittee must keep records in accordance with paragraph i. of this condition and report in accordance with paragraph j. of this condition. For the purposes of this condition, fugitive emissions are defined as any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 parts per million (ppm) or greater using Method 21 of Appendix A-7 to 40 C.F.R. Part 60.

b. The permittee must develop an emissions monitoring plan that covers the collection of fugitive emissions components at compressor stations within each company-defined area in accordance with paragraphs c. and d. of this condition.

c. Fugitive emissions monitoring plans must include the elements specified in paragraphs c.1. through 8. of this condition, at a minimum.

1. Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by paragraphs f. and g. of this condition.

2. Technique for determining fugitive emissions (i.e., Method 21 of Appendix A-7 to 40 C.F.R. Part 60 or optical gas imaging meeting the requirements in paragraphs c.7.i. through vii. of this condition).

3. Manufacturer and model number of fugitive emissions detection equipment to be used.

4. Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emissions components that are

unsafe to repair. The repair schedule must meet the requirements of paragraph h. of this condition at a minimum.

5. Procedures and timeframes for verifying fugitive emissions component repairs.

6. Records that will be kept and the length of time records will be kept.

7. If using optical gas imaging, the plan must also include the elements specified in paragraphs c.7.i. through vii. of this condition.

   i. Verification that the optical gas imaging equipment meets the specifications of paragraphs c.7.i.a. and b. of this condition. This verification is an initial verification and may either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitive emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging.

      a. The optical gas imaging equipment must be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

      b. The optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of ≤ 60 g/hr from a quarter inch diameter orifice.

   ii. Procedure for a daily verification check.

   iii. Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.

   iv. Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.

   v. Procedures for conducting surveys, including the items specified in paragraphs c.7.v.a. through c. of this condition.

      a. How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.

      b. How the operator will deal with adverse monitoring conditions, such as wind.

      c. How the operator will deal with interferences (e.g., steam).

   vi. Training and experience needed prior to performing surveys.

   vii. Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.

8. If using Method 21 of Appendix A-7 of 40 C.F.R. Part 60, the plan must also include the elements specified in paragraphs c.8.i. and iii. of this condition. For the purposes of complying with the fugitive emissions monitoring program using Method 21 of Appendix A-7 of 40 C.F.R. Part 60, a fugitive emission is defined as an instrument reading of 500 ppm or greater.

i. ***Verification that monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 C.F.R. Part 60, Appendix A-7.*** For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If the permittee wishes to use an analyzer other than a FID-based instrument, the permittee must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to the compound of interest).

ii. ***Procedures for conducting surveys.*** At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 C.F.R. Part 60, Appendix A-7, including Section 8.3.1.

iii. ***Procedures for calibration.*** The instrument must be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7 of 40 C.F.R. Part 60. At a minimum, the permittee must also conduct precision tests at the interval specified in Method 21 of Appendix A-7 of 40 C.F.R. Part 60, Section 8.1.2, and a calibration drift assessment at the end of each monitoring day. The calibration drift assessment must be conducted as specified in paragraph c.8.iii.a. of this condition. Corrective action for drift assessments is specified in paragraphs c.8.iii.b. and c. of this condition.

a. Check the instrument using the same calibration gas that was used to calibrate the instrument before use. Follow the procedures specified in Method 21 of Appendix A-7 of 40 C.F.R. Part 60, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. If multiple scales are used, record the instrument reading for each scale used. Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value for each scale and multiply by 100 to express the calibration drift as a percentage.

b. If a calibration drift assessment shows a negative drift of more than 10 percent, then all equipment with instrument readings between the fugitive emission definition multiplied by (100 minus the percent of negative drift/divided by 100) and the fugitive emission definition that was monitored since the last calibration must be re-monitored.

c. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment with instrument readings above the fugitive emission definition and below the fugitive emission definition multiplied by (100 plus the percent of positive drift/divided by 100) monitored since the last calibration may be re-monitored.

d. Each fugitive emissions monitoring plan must include the elements specified in paragraphs d.1. through 3. of this condition, at a minimum, as applicable.

1. If using optical gas imaging, the plan must include procedures to ensure that all fugitive emissions components are monitored during each survey. Example procedures include, but are not limited to, a sitemap with an observation path, a written narrative of where the fugitive emissions components are located and how they will be monitored, or an inventory of fugitive emissions components.

2. If using Method 21 of Appendix A-7 of 40 C.F.R. Part 60, the plan must include a list of fugitive emissions components to be monitored and the method for determining the location of fugitive emissions components to be monitored in the field (e.g., tagging, identification on a process and instrumentation diagram, etc.).

3. The fugitive emissions monitoring plan must include the written plan developed for all of the fugitive emissions components designated as difficult-to-monitor in accordance with paragraph g.2. of this condition, and the written plan for fugitive emissions components designated as unsafe-to-monitor in accordance with g.3. of this condition.

e. Each monitoring survey shall observe each fugitive emissions component, as defined in 40 C.F.R. §60.5430a, for fugitive emissions.

f. The permittee must conduct an initial monitoring survey within 90 days of the startup of a new compressor station for each collection of fugitive emissions components at the new compressor station. For a modified collection of fugitive emissions components at a compressor station, the initial monitoring survey must be conducted within 90 days of the modification.

g. A monitoring survey of each collection of fugitive emissions components at a compressor station must be performed at the frequencies specified in paragraph g.1. of this condition, with the exceptions noted in paragraphs g.2. and g.3. of this condition.

1. A monitoring survey of the collection of fugitive emissions components at a compressor station must be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys must be conducted at least 60 days apart.

2. Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the specifications of paragraphs g.2.i. through iv. of this condition.

i. A written plan must be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by paragraphs b., c., and d. of this condition.

ii. The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.

iii. The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.

iv. The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.

3. Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor must meet the specifications of paragraphs g.3.i. through iv. of this condition.

i. A written plan must be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by paragraphs b., c., and d. of this condition.

ii. The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.

iii. The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.

iv. The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.

h. Each identified source of fugitive emissions shall be repaired, as defined in 40 C.F.R. §60.5430a, in accordance with paragraphs h.1. and 2. of this condition.

1. A first attempt at repair shall be made no later than 30 calendar days after detection of the fugitive emissions.

2. Repair shall be completed as soon as practicable, but no later than 30 calendar days after the first attempt at repair as required in paragraph h.1. of this condition.

3. Delay of repair will be allowed if the conditions in paragraphs h.3.i. or ii. of this section are met.

i. If the repair is technically infeasible, would require a vent blowdown, a compressor station shutdown, or would be unsafe to repair during operation of the unit, the repair must be completed during the next scheduled compressor station shutdown for maintenance, after a scheduled vent blowdown, or within 2 years of detecting the fugitive emissions, whichever is earliest. For the purposes of this paragraph h.3., a vent blowdown is the opening of one or more blowdown valves to depressurize major production and processing equipment, other than a storage vessel.

ii. If the repair requires replacement of a fugitive emissions component or a part thereof, but the replacement cannot be acquired and installed within the repair timelines specified in paragraphs h.1. and 2. of this section due to either of the conditions specified in paragraphs h.3.ii.a. or b. of this section, the repair must be completed in accordance with paragraph h.3.ii.c. of this section and documented in accordance with Condition 6.4.1.c.9.

a. Valve assembly supplies had been sufficiently stocked but are depleted at the time of the required repair.

b. A replacement fugitive emissions component or a part thereof requires custom fabrication.

c. The required replacement must be ordered no later than 10 calendar days after the first attempt at repair. The repair must be completed as soon as practicable, but no later than 30 calendar days after receipt of the replacement component, unless the repair requires a compressor station shutdown. If the repair requires a compressor station shutdown, the repair must be completed in accordance with the timeframe specified in paragraph h.3.i. of this condition.

4. Each identified source of fugitive emissions must be resurveyed to complete repair according to the requirements in paragraphs h.4.i. through iv. of this condition to ensure that there are no fugitive emissions.

   i. The operator may resurvey the fugitive emissions components to verify the repair using either Method 21 of Appendix A-7 of 40 C.F.R. Part 60 or optical gas imaging.

   ii. For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged during the monitoring survey when the fugitives were initially found for identification purposes and subsequent repair. The digital photograph must include the date that the photograph was taken and must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

   iii. Operators that use Method 21 of Appendix A-7 of 40 C.F.R. Part 60 to resurvey the repaired fugitive emissions components are subject to the resurvey provisions specified in paragraphs h.4.iii.a. and b. of this condition.

      a. A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in Section 8.3.3 of Method 21 of Appendix A-7 of 40 C.F.R. Part 60 are used.

      b. Operators must use the Method 21 monitoring requirements specified in paragraph c.8.ii. of this condition or the alternative screening procedures specified in Section 8.3.3 of Method 21 of Appendix A-7 of 40 C.F.R. Part 60.

   iv. Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the resurvey provisions specified in paragraphs h.4.iv.a. and b. of this condition.

      a. A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.

      b. Operators must use the optical gas imaging monitoring requirements specified in paragraph c.7. of this condition.

i. Records for each monitoring survey shall be maintained as specified in Condition 6.4.1.

j. Annual reports shall be submitted for each collection of fugitive emissions components at a compressor station that include the information specified in Condition 6.5.1.b. Multiple collection of fugitive emissions components at a compressor station may be included in a single annual report.

[45CSR13, R13-2831, 14.1.1.; 45CSR16; 40 C.F.R. §§60.5397a(a) to (e), (f)(2), (g), (g)(2) to (4), and (h) to (j)]

6.2. Monitoring Requirements

6.2.1. The permittee must determine initial compliance with the standards for each collection of fugitive emissions components at a compressor station using the requirements in paragraphs a. through e. of this condition. The initial compliance period begins upon initial startup and ends no later than 1 year after the initial startup date for the affected facility. The initial compliance period may be less than 1 full year.

a. The permittee must develop a fugitive emissions monitoring plan as required in Conditions 6.1.2.b., c., and d.

b. The permittee must conduct an initial monitoring survey as required in Condition 6.1.2.f.

c. The permittee must maintain the records specified in Condition 6.4.1.

d. The permittee must repair each identified source of fugitive emissions for each affected facility as required in Condition 6.1.2.h.

e. The permittee must submit the initial annual report for each collection of fugitive emissions components at a compressor station as required in Conditions 6.5.1.a. and b.

[45CSR16; 40 C.F.R. §60.5410a(j)]

6.2.2. For each collection of fugitive emissions components at a compressor station, the permittee must demonstrate continuous compliance with the fugitive emission standards specified in Condition 6.1.2. according to paragraphs a. through d. of this condition.

a. The permittee must conduct periodic monitoring surveys as required in Condition 6.1.2.g.

b. The permittee must repair each identified source of fugitive emissions as required in Condition 6.1.2.h.

c. The permittee must maintain records as specified in Condition 6.4.1.

d. The permittee must submit annual reports for collection of fugitive emissions components at a compressor station as required in Conditions 6.5.1.a. and b.

[45CSR16; 40 C.F.R. §60.5415a(h)]

6.3. Testing Requirements

6.3.1. None.

6.4. Recordkeeping Requirements

6.4.1. The permittee must maintain the records identified as specified in 40 C.F.R. §60.7(f) and specified in this condition for each collection of fugitive emissions components at a compressor station. All records required by 40 C.F.R. Part 60 Subpart OOOOa must be maintained either on-site or at the nearest local field office for at least 5 years. Any records required to be maintained by Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.

a. The date of the startup or the date of the modification for each collection of fugitive emissions components at a compressor station.

b. The fugitive emissions monitoring plan as required in paragraphs b. through d. of Condition 6.1.2.

c. The records of each monitoring survey as follows:

1. Date of the survey.

2. Beginning and end time of the survey.

3. Name of the operator(s), training, and experience of the operator(s) performing the survey.

4. Monitoring instrument used.

5. Fugitive emissions component identification when Method 21 of 40 C.F.R. Part 60, Appendix A-7 is used to perform the monitoring survey.

6. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey. For compressor stations, operating mode of each compressor (i.e., operating, standby, pressurized, and not operating-depressurized modes) at the station at the time of the survey.

7. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

8. Records of calibrations for the instrument used during the monitoring survey.

9. Documentation of each fugitive emission detected during the monitoring survey, including the information specified in paragraphs c.9.i. through ix. of this condition.

i. Location of each fugitive emission identified.

ii. Type of fugitive emissions component, including designation as difficult-to-monitor or unsafe-to-monitor, if applicable.

iii. If Method 21 of Appendix A-7 of 40 C.F.R. Part 60 is used for detection, record the component ID and instrument reading.

iv. For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph or video must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken and must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture). The digital photograph or identification (e.g., tag) may be removed after the repair is completed, including verification of repair with the resurvey.

v. The date of first attempt at repair of the fugitive emissions component(s).

vi. The date of successful repair of the fugitive emissions component, including the resurvey to verify repair and instrument used for the resurvey.

vii. Identification of each fugitive emission component placed on delay of repair and explanation for each delay of repair.

viii. For each fugitive emission component placed on delay of repair for reason of replacement component unavailability, the operator must document: the date the component was added to the delay of repair list, the date the replacement fugitive component or part thereof was ordered, the anticipated component delivery date (including any estimated shipment or delivery date provided by the vendor), and the actual arrival date of the component.

ix. Date of planned shutdowns that occur while there are any components that have been placed on delay of repair.

d. For each collection of fugitive emissions components at a compressor station complying with an alternative means of emissions limitation under 40 C.F.R. §60.5399a, the permittee must maintain the records specified by the specific alternative fugitive emissions standard for a period of at least 5 years.

e. If complying with the alternative GHG and VOC standard under 40 C.F.R. §60.5398b, in lieu of the information specified in paragraphs b. through c. of this condition, the permittee must maintain the records specified in 40 C.F.R. §60.5424b.

[45CSR16; 40 C.F.R. §§60.5420a(c), (c)(15), and (c)(15)(i), (vi) to (ix)]

6.5. Reporting Requirements

6.5.1. The permittee must submit annual reports containing the information specified in paragraphs a. and b. of this condition. The permittee must submit annual reports following the procedure specified in paragraph c. of this condition. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to Condition 6.2.1. Subsequent annual reports are due no later than the same date each year as the initial annual report. The permittee may submit one report for multiple affected facilities provided the report contains all of the information specified in paragraphs a. and b. of this condition. Annual reports may coincide with Title V reports as long as all the required elements of the annual report are included. The permittee may arrange with the Administrator a common schedule on which reports required by 40 C.F.R. Part 60 may be submitted as long as the schedule does not extend the reporting period.

a. The general information specified below is required for all reports:

1. The company name, facility site name associated with the affected facility, and address of the affected facility.

2. An identification of each affected facility being included in the annual report.

3. Beginning and ending dates of the reporting period.

4. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

b. For the collection of fugitive emissions components at each compressor station, report the information specified in paragraphs b.1. through 3. of this condition, as applicable.

1. i. Designation of the type of site (i.e., well site or compressor station) at which the collection of fugitive emissions components is located.

   ii. For each collection of fugitive emissions components at a compressor station that became an affected facility during the reporting period, the permittee must include the date of startup or the date of modification.

2. For each fugitive emissions monitoring survey performed during the annual reporting period, the information specified in paragraphs b.2.i. through vii. of this condition.

   i. Date of the survey.

   ii. Monitoring instrument used.

   iii. Any deviations from the monitoring plan elements under Conditions 6.1.2.c.1., c.2., c.7., and c.8.i. or a statement that there were no deviations from these elements of the monitoring plan.

   iv. Number and type of components for which fugitive emissions were detected.

   v. Number and type of fugitive emissions components that were not repaired as required in Condition 6.1.2.h.

   vi. Number and type of fugitive emission components (including designation as difficult-to-monitor or unsafe-to-monitor, if applicable) on delay of repair and explanation for each delay of repair.

   vii. Date of planned shutdown(s) that occurred during the reporting period if there are any components that have been placed on delay of repair.

3. For each collection of fugitive emissions components at a compressor station complying with an alternative fugitive emissions standard under 40 C.F.R. §60.5399a, in lieu of the information specified in paragraphs b.1. and 2. of this condition, the permittee must provide the information specified in paragraphs b.3.i. through iii. of this condition.

   i. The alternative standard with which you are complying.

   ii. The site-specific reports specified by the specific alternative fugitive emissions standard, submitted in the format in which they were submitted to the state, local, or tribal authority. If the report is in hard copy, the permittee must scan the document and submit it as an electronic attachment to the annual report required in this condition.

   iii. If the report specified by the specific alternative fugitive emissions standard is not site-specific, the permittee must submit the information specified in paragraphs b.1. and 2. of this condition for each individual site complying with the alternative standard.

4. If complying with the alternative GHG and VOC standard under 40 C.F.R. §60.5398b, in lieu of the information specified in paragraph b.2. of this condition, the permittee must provide the information specified in 40 C.F.R. §60.5424b.

c. The permittee must submit reports to the EPA via CEDRI, except as outlined in 40 C.F.R. §60.5420a(b)(11). CEDRI can be accessed through the EPA's CDX (https://cdx.epa.gov/). The permittee must use the appropriate electronic report template on the CEDRI website for 40 C.F.R. Part 60 Subpart OOOOa (https://www.epa.gov/electronic-reporting-air-emissions/cedri/).

[45CSR16; 40 C.F.R. §§60.5420a(b), (b)(1), (b)(7), (b)(7)(i)(A), (b)(7)(i)(B), (b)(7)(ii) to (iv), and (b)(11)]

6.6. Compliance Plan

6.6.1. None.

7.0 Natural Gas Dehydration Units [Emission Point IDs: EPDSV-1 to EPDSV-3 and EPDFT-1 to EPDFT-3]

7.1. Limitations and Standards

7.1.1. Maximum Throughput Limitation. The maximum dry natural gas throughput to each of the glycol dehydration units shall not exceed the following:

Emission Unit ID	Emission Point ID	Emission Unit	Design Capacity
EUDFT-1/ EUDSV-1	EPDFT-1/ EPDSV-1	Dehy Flash Tank Vent Controlled by Flare; Dehy Still Vent Controlled by Condenser/Reboiler	55 mmscfd
EUDFT-2/ EUDSV-2	EPDFT-2/ EPDSV-2	Dehy Flash Tank Vent Controlled by Flare; Dehy Still Vent Controlled by Condenser/Reboiler	55 mmscfd
EUDFT-3/ EUDSV-3	EPDFT-3/ EPDSV-3	Dehy Flash Tank Vent Controlled by Flare; Dehy Still Vent Controlled by Condenser/Reboiler	55 mmscfd

Compliance with the Maximum Throughput Limitation shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-2831, 6.1.1.]

7.1.2. The still vent of each dehydration unit shall be vented to a dedicated BTEX Condenser through a closed vent system. The non-condensable gas shall be vented back to the respective reboiler through a closed vent system. The control device(s) shall be operated according to the manufacturer's specifications and shall be properly maintained in a manner which prevents the unit from freezing.
[45CSR13, R13-2831, 6.1.2.]

7.1.3. *Condensers*. The permittee shall comply with the requirements below:

a. The still vent of each dehydration unit shall be routed to a dedicated BTEX Condenser and BTEX Accumulator (2-phase separator) through a closed vent system. The non-condensable gas from each BTEX Accumulator shall be vented back to the respective reboiler through a closed vent system.

b. Each glycol dehydration unit/still column (EPDSV-1 to EPDSV-3) shall be equipped with a fully functional BTEX Buster (APCCOND-1 to APCCOND-3) at all times. The control device(s) (APCCOND-1 to APCCOND-3) shall be operated according to the manufacturer's specifications and shall be properly maintained in a manner which prevents the unit from freezing.

c. The non-condensable gas from the BTEX Accumulator shall be routed to the reboiler and combusted through a closed vent system.

d. The flash tank off-gases from each flash tank shall be routed to a flash gas header to the facility flare or to the inlet separator of the station for re-processing. The routing of the flash tank off-gases shall be done through a closed vent system.

e. The pilot light for each reboiler burner shall be lit at all times when the dehydration unit is in operation.

f. The maximum flow rate of glycol through each dehydration unit shall not exceed 15 gpm. The unit shall be operated with either an electric or gas pneumatic driven pump that does not exceed the above flow rate.

g. The BTEX Condenser shall be operated in a manner to prevent liquids carryover to the respective reboiler.

h. The system shall be constructed of hard piping.

i. The system shall be constructed and maintained free of leaks.

j. Detected leaks shall be addressed in accordance with the applicable fugitive emission requirements specified in 40 C.F.R. Part 60 Subpart OOOOa.

[45CSR13, R13-2831, 6.1.3.]

7.1.4. *Flare*. The permittee shall install and operate a 5.0 mmBTU/hr flare (APCFLARE) to control VOC and HAP emissions from the glycol dehydration unit flash tanks (EUDFT-1 to EUDFT-3). This flare shall be designed to achieve a minimum guaranteed control efficiency of 98% for volatile organic compounds (VOC) and hazardous air pollutants (HAP) emissions. The permittee shall comply with the design and operating requirements below:

a. Vapors that are being controlled by the flare shall be routed to the flare at all times;

b. The flare shall be operated with a flame present at all times, as determined by the methods specified in Condition 7.2.1.;

c. The flare shall be operated at all times when emissions are vented to it;

d. To ensure compliance with Condition 7.1.4.c., the permittee shall monitor in accordance with Condition 7.2.1.;

e. The flare shall be designed for and operated with no visible emissions as determined by the methods specified in Condition 7.3.1. except for periods not to exceed a total of 5 minutes during any 2 consecutive hours; and

f. The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design.

g. The flare is subject to the applicable requirements of 45CSR6.

1. No person shall cause or allow particulate matter to be discharged from the flare into the open air in excess of 2.09 lbs/hr.
[45CSR§6-4.1.]

2. No person shall cause or allow emission of smoke into the atmosphere from any incinerator which is twenty percent (20%) opacity or greater.
[45CSR§6-4.3.]

3. The provisions of paragraph g.2. shall not apply to smoke which is less than forty percent (40%) opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.
[45CSR§6-4.4.]

4. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR§6-4.5.]

5. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR§6-4.6.]

h. The effluent and purge gas streams shall be routed to the flare through a closed vent system. The closed vent system as required in this condition shall meet the following:

1. The system shall be constructed of hard piping.

2. The system shall be constructed and maintained free of leaks.

3. Detected leaks shall be repaired as soon as practicable with the first attempt at repair within 5 calendar days after detecting the leak. Repair shall be completed no later than 15 calendar days after the leak is detected.

[45CSR13, R13-2831, 6.1.4.]

7.1.5. Emissions from the flare (APCFLARE) shall not exceed the following maximum hourly and annual emission limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	1.96	2.15
Carbon Monoxide	6.20	6.79
Volatile Organic Compounds	12.73	22.64
Total HAPs	3.18	6.36

[45CSR13, R13-2831, 6.1.5.]

7.1.6. Any source that determines it is not a major source but has actual emissions of 5 tpy or more of a single HAP, or 12.5 tpy or more of a combination of HAPs (i.e., 50 percent of the major source thresholds), shall update its major source determination within one year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding twelve months.
[45CSR13, R13-2831, 6.1.6.; 45CSR34; 40 C.F.R. §63.760(c)]

7.1.7. The permittee is exempt from the requirements of 40 C.F.R. §63.764(d) if the criteria below is met, except that the records of the determination of these criteria must be maintained as required in 40 C.F.R. §63.774(d)(1).

a. The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1 tpy), as determined by the procedures specified in §63.772(b)(2) of 40 C.F.R. Part 63 Subpart HH.

[45CSR13, R13-2831, 6.1.7.; 45CSR34; 40 C.F.R. §§63.764(e), (e)(1), and (e)(1)(ii)]

7.1.8. At all times, the permittee must operate and maintain any affected source, 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 which 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.
[45CSR34; 40 C.F.R. §63.764(j)]

7.2. Monitoring Requirements

7.2.1. To demonstrate compliance with the pilot flame requirements of Condition 7.1.4.b. and 7.1.4.d., the presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out.
[45CSR13, R13-2831, 6.2.1.]

7.2.2. The permittee shall monitor the throughput of dry natural gas fed to the dehydration system on a monthly basis for each of the glycol dehydration units (EUDHY-1 to EUDHY-3).
[45CSR13, R13-2831, 6.2.2.]

7.2.3. The permittee shall regularly inspect and properly maintain each BTEX Condenser (APCCOND-1 to APCCOND-3) in conformance with manufacturer recommendations.
[45CSR13, R13-2831, 6.2.3.]

7.3. Testing Requirements

7.3.1. In order to demonstrate compliance with the opacity requirements of Condition 7.1.4.e., the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40 C.F.R. Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water

(condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of 40 C.F.R. Part 60, Appendix A, Method 9 certification course.
[45CSR13, R13-2831, 6.3.1.]

7.3.2. In order to demonstrate compliance with Condition 7.1.5., upon request of the Director, the permittee shall demonstrate compliance with the VOC and HAP emissions thresholds using GLYCalc Version 3.0 or higher. The permittee shall sample in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook.
[45CSR13, R13-2831, 6.3.2.]

7.3.3. **Determination of glycol dehydrator benzene emissions.** In order to demonstrate that the benzene emissions are less than 1 tpy, the permittee shall determine the actual average benzene emissions using the procedure in the paragraph below. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

The owner or operator shall determine actual average benzene or BTEX emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1).
[45CSR13, R13-2831, 6.3.3.; 45CSR34; 40 C.F.R. §§63.772(b)(2) and (b)(2)(i)]

7.3.4. Use of the ProMax model, Version 5.0 or higher, as an alternative to the GLYCalc model is subject to the following requirements:

Inputs to the ProMax, Version 5.0 or above, software shall include the parameters listed below, which must be representative of the actual operating conditions of the glycol dehydration unit:

a. Wet gas flowrate

b. Wet gas composition (dry basis)

c. Wet gas water content (if unknown, can assume a worst-case of 100% saturation)

d. Wet gas (absorber) temperature

e. Wet gas (absorber) pressure

f. Glycol circulation rate (or dry gas water content or glycol circulation ratio)

g. Dry gas water content

h. Lean glycol water content

i. Gas pump volume ratio (when gas injection pump is used)

j. Reboiler temperature

k. Flash tank parameters (when installed)

1. Temperature

2. Pressure

l. Control device parameters (when installed)

1. Combustion device destruction efficiency

2. Condenser temperature and pressure

m. Stripping gas (if used)

1. Type (dry gas, flash gas, nitrogen)

2. Flowrate

[45CSR13, R13-2831, 6.3.4.]

7.3.5. Affected facilities using this alternative (ProMax as an alternative to GLYCalc under 40 C.F.R. Part 63 Subpart HH) for their affected glycol dehydration units must notify the responsible agency before use of the alternative and notification should include a copy of this letter. Facilities must include a copy of this letter with each report presenting results using the ProMax software.
[45CSR13, R13-2831, 6.3.5.]

7.3.6. Once a facility chooses to use ProMax as an alternative to GLYCalc under one or more of the 40 C.F.R. Part 63 Subpart HH provisions listed above, the facility must continue to use ProMax in meeting the provision(s) until the owner/operator receives approval from this office for use of a new alternative method or the responsible agency for use of any other options in Subpart HH, including returning to the use of GLYCalc (see §63.7(f)(5)).
[45CSR13, R13-2831, 6.3.6.]

7.3.7. At such reasonable times as the Secretary may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. Part 60 Appendix A, Method 5 or other equivalent U.S. EPA approved method approved by the Secretary, in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may, at the Secretary's option, witness or conduct such stack tests. Should the Secretary exercise his or her option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above.

[45CSR13, R13-2831, 6.1.4.g.; 45CSR§§6-7.1. and -7.2.]

7.4. Recordkeeping Requirements

7.4.1. For the purpose of demonstrating compliance with the requirements set forth in Conditions 7.1.5. and 7.3.2., the permittee shall maintain records of testing conducted in accordance with Condition 7.3.2.
[45CSR13, R13-2831, 6.4.1.]

7.4.2. The permittee shall document and maintain the corresponding records specified by the on-going monitoring requirements of Section 7.2. and the testing requirements of Section 7.3.
[45CSR13, R13-2831, 6.4.2.]

7.4.3. For the purpose of demonstrating compliance with the minor source status of hazardous air pollutants required by Condition 7.1.5., the permittee shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment.
[45CSR13, R13-2831, 6.4.3.]

7.4.4. The permittee shall maintain a record of the dry natural gas throughput through the dehydration system to demonstrate compliance with Condition 7.1.1.
[45CSR13, R13-2831, 6.4.4.]

7.4.5. To demonstrate that the permittee is exempt from the requirements of 40 C.F.R. §63.764(d) if the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere is less than 0.90 megagram per year (1 tpy), as determined by the procedures specified in §63.772(b)(2) and Condition 7.3.3. of this permit, records of the actual average benzene emissions (in terms of benzene emissions per year) shall be maintained.
[45CSR13, R13-2831, 6.4.5.; 45CSR34; 40 C.F.R. §§63.764(e), 63.774(d)(1) and (d)(1)(ii)]

7.4.6. All records required under Section 7.4. shall be maintained on-site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13, R13-2831, 6.4.6.]

7.5. Reporting Requirements

7.5.1. If the permittee is required by the Director to demonstrate compliance with Condition 7.3.3., then the permittee shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The permittee shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.
[45CSR13, R13-2831, 6.5.1.]

7.5.2. Any deviation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, R13-2831, 6.5.2.]

7.5.3. Any deviation(s) from the flare design and/or operation criteria in Condition 7.1.4. shall be reported in writing to the Director as soon as practicable, but within ten (10) calendar days.
[45CSR13, R13-2831, 6.5.3.]

7.5.4. The TEG dehydration unit is located at an area source and meets the criteria in 40 C.F.R. §63.764(e)(1)(ii). Therefore, the permittee is exempt from the reporting requirements for area sources specified in 40 C.F.R. §§63.775(c)(1) through (7).
[45CSR34; 40 C.F.R. §§63.775(c) and (c)(8)]

7.6. Compliance Plan

7.6.1. None.

8.0 Reboilers and Hot Oil Heater [Emission Point IDs: EPRBL-1 to EPRBL-3 and EPOH-1]

8.1. Limitations and Standards

8.1.1. Maximum Design Heat Input. The maximum design heat input for each of the Reboilers (EURBL-01 to EURBL-03) shall not exceed 1.00 mmBTU/hr.
[45CSR13, R13-2831, 7.1.1.]

8.1.2. Maximum Design Heat Input. The maximum design heat input for the Hot Oil Heater (EUOH-01) shall not exceed 3.35 mmBTU/hr.
[45CSR13, R13-2831, 7.1.2.]

8.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six-minute block average.
[45CSR13, R13-2831, 7.1.3.; 45CSR§2-3.1.]

8.2. Monitoring Requirements

8.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with Condition 8.1.3. Method 9 shall be conducted in accordance with 40 C.F.R. Part 60, Appendix A.
[45CSR13, R13-2831, 7.2.1.]

8.3. Testing Requirements

8.3.1. Compliance with the visible emission requirements of Condition 8.1.3. shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of Condition 8.1.3. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR13, R13-2831, 7.3.1.; 45CSR§2-3.2.]

8.4. Recordkeeping Requirements

8.4.1. The permittee shall maintain records of all monitoring data required by Condition 8.2.1. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
[45CSR13, R13-2831, 7.4.1.]

8.5. Reporting Requirements

8.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60, Appendix A, Method 9 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, R13-2831, 7.5.1.]

8.6. Compliance Plan

8.6.1. None.

9.0 Condensate Stabilizer and Storage Tanks [Emission Point IDs: EPSTAB, EPTK-1 through EPTK-10, and EPWTK-11 through EPWTK-12]

9.1. Limitations and Standards

9.1.1. The condensate stabilizer (EUSTAB) overheads will normally be captured by a vapor recovery unit and routed to the facility inlet. However, for operating flexibility and during maintenance activities, the stabilizer overheads may be sent to the flare (APCFLARE) for up to 120 hours per year. This shall be operated in compliance with Condition 7.1.4.
[45CSR13, R13-2831, 8.1.1.]

9.1.2. The maximum combined annual throughput of liquids to the storage tanks shall not exceed the following:

Tank ID	Material Stored	Maximum Annual Throughput (bbl/yr)
EUTK-01 to EUTK-10	Stabilized Condensate	273,750 (aggregate)
EUTK-11 to EUTK-12	Produced Fluid/Water	36,500 (aggregate)

Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the throughput at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-2831, 8.1.2.]

9.1.3. Maximum emissions from the storage tank battery (EUTK-01 to EUTK-12) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (tpy)
Volatile Organic Compounds	0.27	1.21

[45CSR13, R13-2831, 8.1.3.]

9.1.4. *Vapor Recovery Unit (VRU)*

a. The permittee shall operate the VRU and storage tanks as a closed vent system.

b. Vapors from the storage tanks (EUTK-01 to EUTK-12) shall be captured by a vapor recovery unit (VRU) system while any of the respective vessels are in service, which include vessels that are empty but not degassed, and recompress the vapors back into a pipeline segment. The operational availability of the VRU system shall be 98% on a calendar year basis. No component of the closed vent system of the VRU system shall exhibit any detectable emissions.

[45CSR13, R13-2831, 8.1.4.]

9.1.5. The storage tanks (EUTK-01 to EUTK-12) shall be designed and operated as specified in paragraphs a. through c. of this condition.

a. The cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves, and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel.

b. Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:

1. To add material to or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);

2. To inspect or sample the material in the unit;

3. To inspect, maintain, repair, or replace equipment located inside the unit; or

4. To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of Condition 9.1.4. to a control device.

c. The storage tanks (EUTK-01 to EUTK-12) thief hatch shall be weighted and properly seated. The permittee must select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.

[45CSR13, R13-2831, 8.1.5.]

9.2. Monitoring Requirements

9.2.1. The permittee shall monitor the throughput to the storage tanks (EUTK-01 to EUTK-12) on a monthly basis. **[45CSR13, R13-2831, 8.2.1.]**

9.3. Testing Requirements

9.3.1. None.

9.4. Recordkeeping Requirements

9.4.1. To demonstrate compliance with Condition 9.1.1., the permittee shall maintain a record of the hours the stabilizer overheads were sent to the flare (APCFLARE) on a monthly and rolling twelve-month total. **[45CSR13, R13-2831, 8.3.1.]**

9.4.2. To demonstrate compliance with Conditions 9.1.2. and 9.1.3., the permittee shall maintain a record of the aggregate throughput for the storage tanks on a monthly and rolling twelve-month total. Said records shall be maintained on-site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13, R13-2831, 8.3.2.]

9.4.3. To demonstrate compliance with the operational availability requirement of Condition 9.1.4.b., the permittee shall maintain records of any downtime hours associated with the VRU system.
[45CSR§30-5.1.c.]

9.5. Reporting Requirements

9.5.1. None.

9.6. Compliance Plan

9.6.1. None.

10.0 Truck Loading [Emission Point IDs: EPLOR]

10.1. Limitations and Standards

10.1.1. The maximum combined annual throughput of liquids to the storage tanks shall not exceed the following:

Loadout ID	Material Stored	Maximum Annual Throughput (bbl/yr)
LOR	Stabilized Condensate	273,750 (aggregate)
WLOR	Produced Fluid/Water	36,500 (aggregate)

Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the throughput at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-2831, 9.1.1.]

10.1.2. Maximum emissions from the product loadout rack (EPLOR) shall not exceed the following limits:

Pollutant	Maximum Annual Emissions[1] (tpy)
Volatile Organic Compounds	13.52
Total Hazardous Air Pollutants	0.21

[1] *The VOC and HAP emission limits for EPLOR are based on an overall control efficiency of 66.5%. A capture efficiency of 70% is assumed for tanker trucks that do not pass either the MACT-level annual leak test or the NSPS-level annual leak test. The captured emissions are then controlled by a carbon adsorption system with a 95% control efficiency (see Condition 10.1.3.b.1.). Therefore, the overall control efficiency of VOC and HAP emissions from EPLOR is 66.5% (70% × 95% = 66.5%).*

[45CSR13, R13-2831, 9.1.2.; 45CSR30-5.1.c.]

10.1.3. Truck loading (EPLOR) operations shall be in accordance with the following requirements:

a. All trucks shall be loaded using the submerged-fill method.

b. The permittee shall, at all times when loading operations are occurring, utilize a system of activated carbon canisters (carbon adsorption) to control captured VOC emissions.

1. The carbon adsorption system shall be designed to achieve a 95% minimum guaranteed control efficiency for volatile organic compound (VOC) emissions.

2. The carbon adsorption system must be operated at all times when gases, vapors, and fumes are vented to it. Carbon canisters shall be operated in series as dual carbon canisters, in case of emission breakthrough in one carbon canister.

3. The carbon adsorption system must have a commercially manufactured saturation indicator installed.

4. Prior to the loading of each truck, the saturation indicator on the carbon adsorption system shall be checked to ensure that the carbon is not spent. These records must be kept in accordance with Condition 3.4.2. If the saturation indicator demonstrates that the carbon is saturated, truck loading is prohibited and/or emissions are to cease.

5. All carbon in the carbon canister shall be replaced with fresh carbon or the carbon canister replaced with a new canister when the saturation indicator changes in color and indicates saturation.

6. Fresh replacements for all carbon being used in the carbon adsorption system shall be kept on-site.

[45CSR13, R13-2831, 9.1.3.]

10.1.4. The truck loading shall be operated in accordance with the plans and specifications filed in Permit Application R13-2831F.
[45CSR13, R13-2831, 9.1.4.]

10.2. Monitoring Requirements

10.2.1. The permittee shall monitor the throughput to the truck loading (EPLOR) on a monthly basis.
[45CSR13, R13-2831, 9.2.1.]

10.3. Testing Requirements

10.3.1. None.

10.4. Recordkeeping Requirements

10.4.1. All records required under Section 10.4. shall be kept in accordance with Condition 3.4.2.
[45CSR13, R13-2831, 9.3.1.]

10.4.2. To demonstrate compliance with Conditions 10.1.1. and 10.1.2., the permittee shall maintain a record of the aggregate throughput for the truck loading (EPLOR) on a monthly and rolling twelve-month total.
[45CSR13, R13-2831, 9.3.2.]

10.5. Reporting Requirements

10.5.1. None.

10.6. Compliance Plan

10.6.1. None.

11.0 Compressor Blowdowns, Engine Startups, and Pigging Operations [Emission Point IDs: EPBD, EPESU, and EPPIG]

11.1. Limitations and Standards

11.1.1. The maximum number of compressor blowdown events per year shall not exceed 572, with an estimated total of 3.97 mmscf per year. Compliance shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the compressor blowdown events at any given time during the previous twelve consecutive calendar months.
[45CSR13, R13-2831, 10.1.1.]

11.1.2. The maximum number of engine startup events per year shall not exceed 2,288, with an estimated total of 1.65 mmscf per year. Compliance shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the engine startup events at any given time during the previous twelve consecutive calendar months.
[45CSR13, R13-2831, 10.1.2.]

11.1.3. The maximum number of emergency plant shutdown tests per year shall not exceed 2, with an estimated total of 0.46 mmscf per year. Compliance shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the emergency plant shutdown events at any given time during the previous twelve consecutive calendar months.
[45CSR13, R13-2831, 10.1.3.]

11.1.4. The maximum number of pigging events per year shall not exceed 624, with an estimated total of 152,776 scf per year. Compliance shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the pigging events at any given time during the previous twelve consecutive calendar months.
[45CSR13, R13-2831, 10.1.4.]

11.2. Monitoring Requirements

11.2.1. None.

11.3. Testing Requirements

11.3.1. None.

11.4. Recordkeeping Requirements

11.4.1. All records required under Section 11.4. of this operating permit shall be kept in accordance with Condition 3.4.2.
[45CSR13, R13-2831, 10.2.1.]

11.4.2. To demonstrate compliance with Conditions 11.1.1. through 11.1.4., the permittee shall maintain a record of the blowdown, startup, emergency plant shutdown, and pigging events and estimated volume per event (scf) on a monthly and rolling twelve-month total.
[45CSR13, R13-2831, 10.2.2.]

11.5. Reporting Requirements

11.5.1. Any exceedance of Conditions 11.1.1. through 11.1.4. must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the date of the exceedance, the estimate of VOC emissions released to the atmosphere as a result of the exceedance and any corrective measures taken or planned.
[45CSR13, R13-2831, 10.3.1.]

11.6. Compliance Plan

11.6.1. None.