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:

Blue Racer Midstream, LLC
Natrium Extraction and Fractionation Processing Plant (NEFPP) and Natrium Power Plant (NPP)
R30-05100142-2025

Laura M. Crowder
Director, Division of Air Quality

Issued: [Date of issuance] • Effective: [Equals issue date plus two weeks]
Expiration: [5 years after issuance date] • Renewal Application Due: [6 months prior to expiration]

Permit Number: **R30-05100142-2025**
Permittee: **Blue Racer Midstream, LLC**
Facility Name: **Natrium Extraction and Fractionation Processing Plant (NEFPP) and Natrium Power Plant (NPP)**
Permittee Mailing Address: **14786 Energy Road, Proctor, WV 26055**

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:	Proctor, Marshall County, West Virginia
Facility Mailing Address:	14786 Energy Road, Proctor, WV 26055
Telephone Number:	(304) 455-4220
Type of Business Entity:	LLC
Facility Description:	Natural Gas Extraction/Fractionation Facility
SIC Codes:	Primary: 1321; Secondary: 4911
UTM Coordinates:	512.1 km Easting • 4,400.8 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.

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

1.1. Emission Units

Natrium Extraction and Fractionation Processing Plant

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Heaters					
S001	P001	Hot Oil Heater	2014	216.7 MMBtu/hr	None
S012	P012	Regeneration Gas Heater	2013	9.7 MMBtu/hr	None
S013	P013	Cryogenic Hot Medium Oil (HMO) Heater	2013	26.3 MMBtu/hr	None
S016	P016	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S017	P017	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S018	P018	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S019	P019	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S024	P024	Regeneration Gas Heater	2018	9.7 MMBtu/hr	None
S026	P026	Cryogenic HMO Heater	2018	26.3 MMBtu/hr	None
S036	P036	Regeneration Gas Heater	2019	9.7 MMBtu/hr	None
S037	P037	Cryogenic HMO Heater	2019	26.3 MMBtu/hr	None
S040	P040	Regeneration Gas Heater	Not Yet Constructed	19.28 MMBtu/hr	None
S041	P041	Cryogenic HMO Heater	Not Yet Constructed	54.67 MMBtu/hr	None
S044	P044	Regeneration Gas Heater	Not Yet Constructed	9.7 MMBtu/hr	None
S045	P045	Cryogenic HMO Heater	Not Yet Constructed	26.3 MMBtu/hr	None
S048	P048	Regeneration Gas Heater	Not Yet Constructed	9.7 MMBtu/hr	None
S049	P049	Cryogenic HMO Heater	Not Yet Constructed	26.3 MMBtu/hr	None
S052	P052	Hot Oil Heater	Not Yet Constructed	61.58 MMBtu/hr	None
S053	P053	Hot Oil Heater	Not Yet Constructed	61.58 MMBtu/hr	None
S056	P056	Stabilizer Heater	Not Yet Constructed	10.09 MMBtu/hr	None

Natrium Extraction and Fractionation Processing Plant

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Glycol Dehydration Units					
S006	P001[1]	Glycol Dehydration System Glycol Dehydration Flash Tank	2011	460 mmscf/day	C001[1]
Storage Tanks[2]					
TK-802	P001	Natural Gasoline Storage Tank	2011	714,000 gal	VRU and Natural Gas Blanket[3]
TK-2802	P001	Natural Gasoline Storage Tank	2014	1,260,000 gal	VRU and Natural Gas Blanket[3]
TK-3802	P001	Natural Gasoline Storage Tank	Not Yet Constructed	714,000 gal	VRU and Natural Gas Blanket[3]
TK-4802	P001	Natural Gasoline Storage Tank	Not Yet Constructed	1,260,000 gal	VRU and Natural Gas Blanket[3]
TK-5802	P001	Natural Gasoline Storage Tank	Not Yet Constructed	714,000 gal	VRU and Natural Gas Blanket[3]
TK-6802	P001	Natural Gasoline Storage Tank	Not Yet Constructed	1,260,000 gal	VRU and Natural Gas Blanket[3]
TK-7802	TK-7802	Refrigerated Propane Storage Tank	Not Yet Constructed	4,200,000 gal	VRU
US-800	Flare[4]	Spherical NGL Storage Tank	2011	2,142,000 gal	Pressure Tank
US-801	Flare[4]	Spherical NGL Storage Tank	2011	865,200 gal	Pressure Tank
US-804	Flare[4]	Spherical NGL Storage Tank	2011	865,200 gal	Pressure Tank
US-805	Flare[4]	Spherical NGL Storage Tank	2011	865,200 gal	Pressure Tank
US-2800	Flare[4]	Spherical NGL Storage Tank	Not Yet Constructed	2,142,000 gal	Pressure Tank
US-2801	Flare[4]	Spherical NGL Storage Tank	Not Yet Constructed	865,200 gal	Pressure Tank

Natrium Extraction and Fractionation Processing Plant

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
US-2804	Flare[4]	Spherical NGL Storage Tank	Not Yet Constructed	865,200 gal	Pressure Tank
US-2805	Flare[4]	Spherical NGL Storage Tank	Not Yet Constructed	865,200 gal	Pressure Tank
N/A	N/A	Four (4) Pressurized NGL Bullet Tanks (V-1905, V-1915, V-1925, V-1935)	2014	90,000 gal (each)	Pressure Tank
N/A	N/A	Four (4) Pressurized NGL Bullet Tanks (V-2905, V-2915, V-2925, V-2935)	Not Yet Constructed	90,000 gal (each)	Pressure Tank
TK-906	TK-906	Slop Tank	2011	21,000 gal	None
TK-2906	TK-2906	Slop Tank	Not Yet Constructed	21,000 gal	None
TK-907	TK-907	Produced Water Tank	2012	63,000 gal	None
TK-2907	TK-2907	Produced Water Tank	Not Yet Constructed	63,000 gal	None
Other Emission Units					
S011	P005	Ethane Amine Regenerator	2012	129 mmscf/day	None
S054	P054	Ethane Amine Regenerator	Not Yet Constructed	129 mmscf/day	VRU
S008	P008	Product Loading (Truck, Rail, Propane Barge)	2011	3,600 gpm (truck) 4,000 gpm (rail) 4,000 gpm (barge)	VRU
S015	S015	Slop Water Truck Loading	2011	150 gpm	None
S033	P033	Natural Gasoline Loading (Barge)	2017	4,000 gpm	None
S055	P055	Pressurized NGL/Condensate Unloading	2012	3,600 gpm	None
L-1	L-1	Gasoline Dispenser Loading	2017	20 gal/hr	None
S002	P002	Caterpillar Model C18 Fire Pump #1 Diesel (Manufactured 2011)	2012	700 HP	None
S003	P003	Caterpillar Model C18 Fire Pump #2 Diesel (Manufactured 2011)	2012	700 HP	None
S058	P058	Diesel-Fired Fire Pump Engines/Generators[6]	2020	3,000 HP (total)	None
S035	P035	Pigging Operations	2017	N/A	VRU/ None[5]

Natrium Extraction and Fractionation Processing Plant

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Fugitive Emissions Sources					
FUG AREA 1	N/A	Fugitive Area 1	2011	N/A	None
FUG AREA 2	N/A	Fugitive Area 2	2011	N/A	None
FUG AREA 3	N/A	Fugitive Area 3	2018	N/A	None
FUG AREA 4	N/A	Fugitive Area 4	2019	N/A	None
FUG AREA 5	N/A	Fugitive Area 5	Not Yet Constructed	N/A	None
FUG AREA 6	N/A	Fugitive Area 6	Not Yet Constructed	N/A	None
FUG AREA 7	N/A	Fugitive Area 7	Not Yet Constructed	N/A	None
S010	N/A	Unpaved Roads	2011	N/A	None
Control Devices					
S004A	P004A	Callidus CAL-MP Staged, Multi-Point Ground Flare System (C004A)	2015	19,800,000 scf/hr	N/A
S034	P034	Propane Pig Trap Flare (C034)	2017	72,000 scf/hr	N/A

Control Device ID	Emission Unit	Pollutant	Control Device	Control Efficiency
C004A	Maintenance, Blowdowns, Pressure Relief Valves	VOCs	Flare (S004A)	98.0 %
		Total HAPs		98.0 %
C034	Pigging Flare (S034)	VOCs	Pigging Flare (S034)	98.0%

(1) Still vent and flash tank vapors from S006 will be routed to the Hot Oil Heater (S001: C001) and used as fuel.

(2) Other storage tanks that are not listed here (see Table N-3 in permit application R13-2896F) but meet the *de minimis* requirements under 45CSR13 (*Storage vessels having less than 10,567 gallons capacity containing petroleum or organic liquids with a vapor pressure of 1.5 psia or less at storage temperature, provided that the emissions from all such organic liquid storage tanks, in the aggregate, are less than 2 tons per year for hazardous air pollutants or VOCs*) are authorized at the facility.

(3) Tank uses a natural gas blanket to prevent emissions of natural gasoline. Working/breathing losses of natural gas blanket are collected by a VRU and sent to Hot Oil Heater (S001) as a supplemental fuel.

(4) This tank shall be pressurized in excess of 204.9 kPa (which exempts the tank from applicability to 40 CFR 60, Subpart Kb) and normally has no emissions. In the case of emergency, emissions from the tank can be flared in C004A.

(5) The pigging vapors from the three truck side 30" Inlet receivers are captured by the VRU and routed back to the process.

(6) Under R13-2896I, the construction of one or more diesel-fired fire pump engines with a maximum total rating of 3,000 HP was permitted as emission unit S058. As of the writing of this operating permit, two 800-HP fire pump engines have been installed at the facility under the emission unit ID S058.

Note: Other storage tanks and pressure vessels not listed within the Title V Equipment Table are authorized at this facility according to insignificant activities listed under the Title V General Form Section 24, Item 19.

Natrium Power Plant

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
Combustion Turbines[2]					
Scenario A					
TB1A	TB1AE	GE LM6000PG SPRINT Combustion Turbine #1	Not Yet Constructed	55.275 MW 482.6 MMBtu/hr	OC1, SCR1
TB2A	TB2AE	GE LM6000PG SPRINT Combustion Turbine #2	Not Yet Constructed	55.275 MW 482.6 MMBtu/hr	OC2, SCR2
TB3A	TB3AE	GE LM6000PG SPRINT Combustion Turbine #3	Not Yet Constructed	55.275 MW 482.6 MMBtu/hr	OC3, SCR3
TB4A	TB4AE	GE LM6000PG SPRINT Combustion Turbine #4	Not Yet Constructed	55.275 MW 482.6 MMBtu/hr	OC4, SCR4
Scenario B					
TB1B	TB1BE	Siemens SGT-800 Combustion Turbine #1	Not Yet Constructed	57.863 MW 496.2 MMBtu/hr	OC1, SCR1
TB2B	TB2BE	Siemens SGT-800 Combustion Turbine #2	Not Yet Constructed	57.863 MW 496.2 MMBtu/hr	OC2, SCR2
TB3B	TB3BE	Siemens SGT-800 Combustion Turbine #3	Not Yet Constructed	57.863 MW 496.2 MMBtu/hr	OC3, SCR3
TB4B	TB4BE	Siemens SGT-800 Combustion Turbine #4	Not Yet Constructed	57.863 MW 496.2 MMBtu/hr	OC4, SCR4
Other Combustion Devices					
TB1A/B	TB1A/BE	Duct Burner #1	Not Yet Constructed	475.1 MMBtu/hr	OC1, SCR1
TB2A/B	TB2A/BE	Duct Burner #2	Not Yet Constructed	475.1 MMBtu/hr	OC2, SCR2
TB3A/B	TB3A/BE	Duct Burner #3	Not Yet Constructed	475.1 MMBtu/hr	OC3, SCR3
TB4A/B	TB4A/BE	Duct Burner #4	Not Yet Constructed	475.1 MMBtu/hr	OC4, SCR4
FH1	FH1E	Fuel Gas Heater #1	Not Yet Constructed	9.9 MMBtu/hr	None
FH2	FH2E	Fuel Gas Heater #2	Not Yet Constructed	9.9 MMBtu/hr	None
EG1	EG1E	Emergency Generator	Not Yet Constructed	1,676 HP	None

Natrium Power Plant

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device[1]
FP1	FP1E	Emergency Fire Pump Engine	Not Yet Constructed	700 HP	None
Storage Tanks					
OT1 to OT4	OT1E to OT4E	Lubricating Oil Tank #1-4[3]	Not Yet Constructed	5,000 gal	None
OT5 to OT8	OT5E to OT8E	Waste Oil Tank #1-4[3]	Not Yet Constructed	250 gal	None
AT1	AT1E	Ammonia/Urea Storage Tank[4]	Not Yet Constructed	60,000 gal	None
WS1 to WS4	WS1E to WS4E	Washout Sumps #1-4[3]	Not Yet Constructed	250 gal	None
GT1 to GT4	GT1E to GT4E	Glycol Tanks #1-4[3]	Not Yet Constructed	1,000 gal	None
FT1	FT1E	Generator Fuel Tank[3]	Not Yet Constructed	25 gal	None
FT2	FT2E	Fire Pump Engine Fuel Tank[3]	Not Yet Constructed	25 gal	None
Fugitive Emission Sources					
EL1	N/A	Equipment Leaks	Not Yet Constructed	N/A	N/A

(1) OC = Oxidation Catalyst; SCR = Selective Catalytic Reduction

(2) BRM has permitted two (2) distinct and independent operational scenarios involving different sets of four (4) Combustion Turbines (CTs). Only one scenario will be permitted for the site. No more than four CTs (of the same set) will be permitted to be operated at the site.

(3) Pursuant to 45CSR13, Table 45-13B, defined as a *de minimis* source but included here for completeness.

(4) Ammonia/Urea are not regulated pollutants but the storage tank is included here for completeness.

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
R13-2896K	August 17, 2023
R13-3493	December 15, 2020

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 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.
[45CSR13, R13-2896, Condition 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.
[45CSR§13-5.10.; 45CSR13, R13-2896, Condition 4.1.3.; 45CSR13, R13-3493, Condition 4.1.7.d.]

3.1.11. **Maximum Throughput Limitation.** The total maximum combined wet natural gas throughput of the gas processing plant, as processed in a maximum of seven (7) Cryogenic Plants, shall not exceed 1,945 mmscf/day. To demonstrate compliance, the permittee shall maintain records of the amount of natural gas processed in the gas processing plant.
[45CSR§13-5.10.; 45CSR13, R13-2896, Condition 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.]

3.1.13. When a person is found in violation of 45CSR17, the Director may require the person to utilize a system to minimize fugitive particulate matter. This system to minimize fugitive particulate matter may include, but is not limited to, the following:

a. Use, where practicable, of water or chemicals for control of particulate matter in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;

b. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne particulate matter;

c. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets; or

d. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of materials including adequate containment methods during sandblasting, abrasive cleaning or other similar operations.

[45CSR§17-3.2.]

3.1.14. Only the emission unit/source identified in the table titled "Natrium Power Plant" in Section 1.1., with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, is authorized at the permitted Natrium Power Plant by R13-3493. In accordance with the information filed in Permit Application R13-3493, the emission unit/source identified under the table shall not exceed the listed maximum design capacity and comply with any other information provided under the table.
[45CSR13, R13-3493, 4.1.1.]

3.1.15. Upon construction of the equipment in the Emission Units Table specified as "Not Yet Constructed", the permittee shall meet all applicable requirements for the emission units. The permittee shall notify the Secretary, in writing, of the actual date of the initial startup of these emission units no later than thirty (30) calendar days after such date. Within 180 days of equipment startup, the permittee shall submit, as necessary, a complete application for a significant Title V permit modification pursuant to 45CSR30 to incorporate any amendments or revisions of the applicable requirements.
[45CSR13, R13-2896, Section 2.18.; 45CSR13, R13-3493, Section 2.18.; 45CSR§30-6.5.b.]

3.2. Monitoring Requirements

3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve-month total. A rolling twelve-month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.
[45CSR13, R13-2896, Condition 3.2.1.; 45CSR13, R13-3493, Condition 3.2.1.]

3.2.2. **Maximum Design Capacity Compliance.** Compliance with the maximum design capacity limitations as given under Sections 15.1. to 19.1. of this operating permit (Section 4.1. of R13-3493) shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate that does not exceed the specified value under Section 15.1. to 19.1.
[45CSR13, R13-3493, Condition 4.2.1.]

3.2.3. **Maximum Design Heat Input Compliance.** Compliance with the various combustion unit MDHI limitations as given under Sections 15.1. to 19.1. of this operating permit (Section 4.1. of R13-3493) shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under Sections 15.1. to 19.1.
[45CSR13, R13-3493, Condition 4.2.2.]

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 iin 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.

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-2896, Condition 4.1.1.; 45CSR13, R13-3493, Condition 4.4.1.]

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.
[45CSR§30-5.1.c.2.B.; 45CSR13, R13-2896, Condition 3.4.1.; 45CSR13, R13-3493, Condition 3.4.1.]

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, R13-2896, Condition 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:	**US EPA:**
DEPAirQualityReports@wv.gov	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. 45CSR19 – *Permits for Construction and Major Modification of Major Stationary Sources Which Cause or Contribute to Nonattainment Areas*: This rule establishes a preconstruction permit program for any area designated nonattainment for any national ambient air quality standard (NAAQS) and applies to any new major stationary source or major modification that is major for the pollutant for which the area is designated nonattainment. Marshall County is currently designated as in attainment for the NAAQS. Therefore, 45CSR19 is inapplicable.

b. 45CSR27 – *To Prevent and Control the Emissions of Toxic Air Pollutants*: Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4. exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight."

c. 40 CFR 60, Subparts TTTT and TTTTa – *Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*: Per §60.5509(b)(3) and §60.5509a(b)(3), an electric generating unit is not subject to Subpart TTTT or TTTTa if the unit is a combined heat and power unit subject to a federally enforceable permit condition limiting annual net-electric sales to no more than either 219,000 MWh or the product of the design efficiency and the potential electric output, whichever is greater. Under Condition 4.1.2.h. of R13-3493 (Condition 15.1.1.h. of this operating permit), the amount of power supplied by each turbine to the utility distribution systems is limited to 219,000 MWh per year. Therefore, per §60.5509(b)(3) and §60.5509a(b)(3), the turbines are not subject to Subparts TTTT and TTTTa.

d. 40 CFR 63, Subpart HH – *National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities*: The facility is not subject to the equipment leak standards under 40 CFR §63.769 because it is an area source of HAPs, which limits applicability under Subpart HH to only the (TEG) dehydration unit according to 40 CFR §63.760(b)(2).

e. 40 CFR 63, Subpart DDDDD – *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*: In accordance with 40 CFR §63.7480, this subpart does not apply to the facility since it is not a major source of HAPs as defined in 40 CFR §63.7575.

f. 40 CFR 63, Subpart JJJJJJ – *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*: This subpart does not apply to the facility since the heaters are fueled by natural gas, and gas-fired boilers are exempt per 40 CFR §63.11195(e).

g. 40 CFR 97, Subpart AAAAA/CCCCC/EEEEE – *CSAPR NO_X Annual Trading Program*/*CSAPR SO_2 Group 1 Trading Program*/*CSAPR NO_X Ozone Season Group 2 Trading Program*: In accordance with §52.38(a)(2)(i) and §52.39(b), the provisions of 40 CFR 97, Subparts AAAAA and CCCCC are applicable to sources located in West Virginia with regard to emissions occurring in 2015 and each subsequent year; similarly, in accordance with §52.38(b)(2)(ii)(D)(1) and §52.38(b)(2)(iii)(D)(1), the provisions of 40 CFR 97, Subpart EEEEE are applicable to sources located in West Virginia with regard to emissions occurring in 2023 and thereafter. Per the applicability criteria of §97.404(a)(1), §97.604(a)(1), and §97.804(a)(1), the sources considered to be subject to the CSAPR include any stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine serving, at any time on or after January 1, 2005, a generator with a nameplate capacity of more than 25 MWe producing electricity for sale. However, §97.404(b)(1)(i), §97.604(b)(1)(i), and §97.804(b)(1)(i) exempt any unit that otherwise qualifies as a source subject to the CSAPR from Subparts AAAAA, CCCCC, and EEEEE, respectively, if the unit also qualifies as a cogeneration unit throughout the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit throughout each calendar year after such 12-month period and that does not supply in any calendar year more than one-third of its potential electrical output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale. The turbines TB1A/B through TB4A/B are cogeneration units which produce heat and electricity for use at the facility and, under Condition 4.1.2.h. of R13-3493 (Condition 15.1.1.h. of this operating permit), are subject to a federally enforceable limit that restricts the maximum amount of power supplied by each turbine to the utility distribution system to less than 219,000 MWh per year. Therefore, the facility is not subject to the CSAPR NO_X Annual Trading Program, the CSAPR SO_2 Group 1 Trading Program, nor the CSAPR NO_X Ozone Season Group 2 Trading Program, in accordance with §97.404(b)(1)(i), §97.604(b)(1)(i), and §97.804(b)(1)(i), respectively.

4.0 Hot Oil Heaters [emission unit ID(s): S001, S016-S019, S052-S053]

4.1. Limitations and Standards

4.1.1. The MDHI of the Hot Oil Heater designated as S001 shall not exceed 216.7 MMBtu/hr and, for each Hot Oil Heater designated as S016-S019 and S052-S053, shall not exceed 61.58 MMBtu/hr. All Hot Oil Heaters (S001, S016-S019, S052-S053) shall be equipped with Low NO_X burners.
[45CSR13, R13-2896, Condition 5.1.1.]

4.1.2. Maximum emissions from the Hot Oil Heaters shall not exceed the following:

a. The maximum emissions from S001 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S001	Nitrogen Oxides	9.75	42.71
	Carbon Monoxide	3.25	14.24
	$PM_{2.5}/PM_{10}/PM^{(1)(2)}$	1.61	7.07
	$SO_2^{(3)}$	0.15	0.67
	VOCs	0.37	1.61

(1) Includes Condensables.
(2) Compliance with this limit will ensure compliance with 45CSR§2-4.1.2. (condition 4.1.4.b)
(3) Compliance with this limit will ensure compliance with 45CSR§10-3.1.5.

b. The maximum emissions from each heater S016-S019 and S052-S053 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S016-S019, S052-S053	Nitrogen Oxides	1.48	6.47
	Carbon Monoxide	3.63	15.91
	$SO_2^{(3)}$	0.04	0.19
	$PM_{2.5}/PM_{10}/PM^{(1)(2)}$	0.46	2.01
	VOCs	0.33	1.45

(1) Includes Condensables.
(2) Compliance with this limit will ensure compliance with 45CSR§2-4.1.2. (condition 4.1.4.b)
(3) Compliance with this limit will ensure compliance with 45CSR§10-3.1.5.

[45CSR§2-4.1.2.; 45CSR§10-3.1.5.; 45CSR13, R13-2896, Condition 5.1.2.]

4.1.3. The quantity of natural gas that shall be consumed in the 216.7 MMBtu/hr Hot Oil Heater (S001) shall not exceed 225,571 standard cubic feet per hour and 1,976 x 10^6 standard cubic feet per year. The quantity of

natural gas that shall be consumed in each 61.58 MMBtu/hr Hot Oil Heaters (S016-S019 and S052-S053) shall not exceed 64,101 standard cubic feet per hour and 562 x 10^6 standard cubic feet per year.
[45CSR13, R13-2896, Condition 5.1.3.]

4.1.4. **45CSR2**
Each Hot Oil Heater is subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under a. through c.:

a. 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.
[45CSR§2-3.1.]

b. The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:

1. The product of 0.09 and the total design heat input for the fuel burning units in MMBtu/hr, provided however that no more than 600 lb/hr of particulate matter shall be discharged into the open air.

[45CSR§§2-4.1. and -4.1.2.]

[45CSR13, R13-2896, Condition 5.1.4.]

4.1.5. **40 CFR 60, Subpart Db**
Hot Oil heater S001 is subject to the applicable limitations and standards under 40 CFR 60, Subpart Db, including the requirements as given below under a. through c.:

a. Units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO_2 emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO_2 emissions limit in 40 CFR §60.42b(k)(1).
[45CSR16; 40 CFR §60.42b(k)(2)]

b. Except as provided under 40 CFR §§60.44b(k) and (l), on and after the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of 40 CFR §60.44b and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_X (expressed as NO_2) in excess of the following emission limits:

1. Low heat release rate: 0.10 lb/MMBtu

2. High heat release rate: 0.20 lb/MMBtu

[45CSR16; 40 CFR §§60.44b(a), (a)(1)(i), and (a)(1)(ii)]

c. Except as provided under 40 CFR §§60.48b(g), (h), and (i), the owner or operator of an affected facility subject to a NO_X standard under §60.44b shall comply with either paragraphs 40 CFR §60.48b(b)(1) or (b)(2).

1. Install, calibrate, maintain, and operate CEMS for measuring NO_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system.

[45CSR16; 40 CFR §§60.48b(b) and (b)(1)]

d. Pursuant to 40 CFR §60.49b(r)(2)(iv), the WVDAQ approves quarterly fuel sampling for S001.

[45CSR13, R13-2896, Condition 5.1.5.]

4.1.6. **40 CFR 60, Subpart Dc**
Hot Oil Heaters S016-S019 and S052-S053 are subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated. Recordkeeping and reporting requirements shall be conducted in accordance with §60.48c. These reports shall be submitted in accordance with the timelines and in the order set forth in §60.48c and submitted to the addresses listed in Section 3.5.3.
[45CSR13, R13-2896, Condition 5.1.6.]

4.2. Monitoring Requirements

4.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 4.1.4. of this permit. Method 9 shall be conducted in accordance with 40 CFR 60, Appendix A.
[45CSR§2-3.2.; 45CSR13, R13-2896, Condition 5.2.1.]

4.2.2. **40 CFR 60, Subpart Db**
Hot Oil Heater S001 is subject to the applicable limitations and standards under 40 CFR 60, Subpart Db:

a. For purposes of 40 CFR §60.44b(i), the NO_X standards under 40 CFR §60.44b apply at all times including periods of startup, shutdown, or malfunction.
[45CSR16; 40 CFR §60.44b(h)]

b. Except as provided under 40 CFR §60.44b(j), compliance with the emission limits under 40 CFR §60.44b is determined on a 30-day rolling average basis.
[45CSR16; 40 CFR §60.44b(i)]

c. The CEMS required under 40 CFR §60.48b(b) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
[45CSR16; 40 CFR §60.48b(c)]

d. The 1-hour average NO_X emission rates measured by the continuous NO_X monitor required by condition 4.1.5. and required under 40 CFR §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR §60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR §60.13(h)(2).
[45CSR16; 40 CFR §60.48b(d)]

e. The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

1. For affected facilities combusting coal, oil, or natural gas, the span value for NO_X is determined using one of the following procedures:

   i. Except as provided under paragraph e.1.ii. of this condition, NO_X span values shall be determined as follows:

Fuel	Span Values for NO_X (ppm)
Natural Gas	500
Oil	500
Coal	1,000
Mixtures	500 (x + y) + 1,000z

   Where:
   x = Fraction of total heat input derived from natural gas;
   y = Fraction of total heat input derived from oil; and
   z = Fraction of total heat input derived from coal.

   ii. As an alternative to meeting the requirements of paragraph e.1.i. of this condition, the owner or operator of an affected facility may elect to use the NO_X span values determined according to section 2.1.2 in Appendix A to 40 CFR 75.

2. All span values computed under paragraph e.1.i. of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under paragraph e.1.ii. of this section shall be rounded off according to section 2.1.2 in Appendix A to 40 CFR 75.

[45CSR16; 40 CFR §§60.48b(e), (e)(2), and (e)(3)]

f. When NO_X emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of Appendix A of 40 CFR 60, Method 7A of Appendix A of 40 CFR 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.
[45CSR16; 40 CFR §60.48b(f)]

g. The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, gasified coal, or any mixture of these fuels, greater than 10 percent (0.10) shall:

   1. Comply with the provisions of 40 CFR §§60.48b(b), (c), (d), (e)(2), (e)(3), and (f).

   [45CSR16; 40 CFR §§60.48b(g) and (g)(1)]

4.3. Testing Requirements

4.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3. of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established under 4.1.2.a. and b.
[45CSR§§2-8.1.2. and -8.1.3.; 45CSR13, R13-2896, Condition 5.3.1.]

4.3.2. **40 CFR 60, Subpart Db**
Hot Oil Heater S001 is subject to the applicable compliance demonstration requirements of 40 CFR 60, Subpart Db:

To determine compliance with the emission limits for NO_X required under 40 CFR §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under 40 CFR §60.8 using the continuous system for monitoring NO_X under 40 CFR §60.48b(b).

a. Following the date on which the initial performance test is completed or required to be completed under 40 CFR §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_X standards in 40 CFR §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_X emissions data collected pursuant to 40 CFR §60.48b(g)(1) or (2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_X emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

[45CSR16; 40 CFR §§60.46b(c), 60.46b(e), and 60.46b(e)(4)]

4.4. Recordkeeping Requirements

4.4.1. **Records of Fuel Usage**

a. To demonstrate continuous compliance with sections 4.1.1. to 4.1.3., the permittee shall monitor and record the monthly and twelve (12) month rolling total of the amount of natural gas consumed in S001, S016 to S019, and S052 to S053.
[45CSR13, R13-2896, Condition 5.4.1.]

b. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Secretary. Such records are to be maintained on-site and made available to the Secretary upon request.
[45CSR§2-8.3.3.]

c. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as specified:

1. For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of startup and shutdown, and the quantity of fuel consumed on a monthly basis.

[45CSR§§2A-7.1.a. and -7.1.a.1.]

4.4.2. **40 CFR 60, Subpart Db**

Hot Oil Heater S001 is subject to the applicable limitations and standards under 40 CFR 60, Subpart Db:

a. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
[45CSR16; 40 CFR §60.49b(d)(1)]

b. The owner or operator of an affected facility subject to the NO_X standards under 40 CFR §60.44b shall maintain records of the following information for each steam generating unit operating day:

1. Calendar date;

2. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

3. The 30-day average NO_X emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

4. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

5. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

6. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

8. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

9. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of 40 CFR 60.

[45CSR16; 40 CFR §60.49b(g)]

c. The owner or operator of an affected facility who elects to use the fuel-based compliance alternatives in 40 CFR §60.42b or §60.43b shall either:

1. The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil, natural gas, wood, a mixture of these fuels, or any of these fuels (or a mixture of these fuels) in combination with other fuels that are known to contain an insignificant amount of sulfur in 40 CFR §60.42b(j) or §60.42b(k) shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in 40 CFR §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period; or

2. The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in 40 CFR §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date of the intended compliance demonstration. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

i. The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;

ii. The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;

iii. The ratio of different fuels in the mixture; and

iv. The owner or operator can petition the Administrator to approve monthly or quarterly (condition 4.1.5.d.) sampling in place of weekly sampling.

[45CSR16; 40 CFR §§60.45b(k), 60.47b(f), and 60.49b(r)]

d. All records required under 40 CFR §60.49b shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.
[45CSR16; 40 CFR §60.49b(o)]

4.4.3. **40 CFR 60, Subpart Dc**
Hot Oil Heaters S016-S019 and S052-S053 are subject to the following applicable provisions of 40 CFR 60, Subpart Dc:

a. Except as provided under paragraphs b. and c. of this condition, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
[45CSR16; 40 CFR §60.48c(g)(1)]

b. As an alternative to meeting the requirements of paragraph a. of this condition, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
[45CSR16; 40 CFR §60.48c(g)(2)]

c. As an alternative to meeting the requirements of paragraph a. of this condition, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to 40 CFR 60, Subpart Dc) at that property are natural gas, wood, distillate oil meeting the most current requirements in 40 CFR §60.42c to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.
[45CSR16; 40 CFR §60.48c(g)(3)]

d. All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
[45CSR16; 40 CFR §60.48c(i)]

4.5. Reporting Requirements

4.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40 CFR 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, R13-2896, Condition 5.5.1.]

4.5.2. **40 CFR 60, Subpart Db**
Hot Oil Heater S001 is subject to the applicable limitations and standards under 40 CFR 60, Subpart Db:

a. The owner/operator is required to submit excess emission reports for any excess emissions that occurred during the reporting period.
[45CSR16; 40 CFR §§60.49b(h), (h)(2), and (h)(2)(i)]

b. For the purposes of 40 CFR §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_X emission rate, as determined under 40 CFR §60.46b(e), that exceeds the applicable emission limits in 40 CFR §60.44b.
[45CSR16; 40 CFR §60.49b(h)(4)]

c. The owner or operator of any affected facility subject to the continuous monitoring requirements for NO_X under 40 CFR §60.48b(b) shall submit reports containing the information recorded under 40 CFR §60.49b(g).
[45CSR16; 40 CFR §60.49b(i)]

d. The owner or operator of an affected facility may submit electronic quarterly reports for SO_2 and/or NO_X and/or opacity in lieu of submitting the written reports required under 40 CFR §§60.49b(h), (i), (j), (k), or (l). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60, Subpart Db was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.
[45CSR16; 40 CFR §60.49b(v)]

e. The reporting period for the reports required under 40 CFR 60, Subpart Db is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.
[45CSR16; 40 CFR §60.49b(w)]

4.6. Compliance Plan

4.6.1. None

5.0 Cryogenic HMO/Stabilizer Heaters [emission unit ID(s): S013, S026, S037, S041, S045, S049, S056]

5.1. Limitations and Standards

5.1.1. **Maximum Design Heat Input.** The maximum design heat input for the Cryogenic HMO Heaters shall not exceed 26.3 MMBtu/hr for units S013, S026, S037, S045, and S049 and 54.67 MMBtu/hr for unit S041. The maximum design heat input for the Stabilizer Heater (S056) shall not exceed 10.09 MMBtu/hr. **[45CSR13, R13-2896, Condition 6.1.1.]**

5.1.2. Maximum emissions from the Cryogenic HMO/Stabilizer Heaters shall not exceed the following:

a. The maximum emissions from Cryogenic HMO Heaters S013, S026, S037, S045, and S049 shall not exceed the following individual unit limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S013 S026 S037 S045 S049	Nitrogen Oxides	2.58	11.29
	Carbon Monoxide	2.17	9.49
	$PM_{2.5}/PM_{10}/PM^{(1)(2)}$	0.20	0.86
	$SO_2^{(3)}$	0.02	0.08
	VOCs	0.14	0.62

(1) Includes Condensables.
(2) Compliance with this limit will ensure compliance with 45CSR§2-4.1.2.
(3) Compliance with this limit will ensure compliance with 45CSR§10-3.1.5.

b. The maximum emissions from Cryogenic HMO Heater S041 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S041	Nitrogen Oxides	5.36	23.48
	Carbon Monoxide	4.50	19.72
	$PM_{2.5}/PM_{10}/PM^{(1)(2)}$	0.41	1.78
	$SO_2^{(3)}$	0.04	0.17
	VOCs	0.29	1.29

(1) Includes Condensables.
(2) Compliance with this limit will ensure compliance with 45CSR§2-4.1.2.
(3) Compliance with this limit will ensure compliance with 45CSR§10-3.1.5.

c. The maximum emissions from Stabilizer Heater S056 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S056	Nitrogen Oxides	0.99	4.33
	Carbon Monoxide	0.83	3.64
	$PM_{2.5}/PM_{10}/PM^{(1)(2)}$	0.08	0.33
	$SO_2^{(3)}$	0.01	0.03
	VOCs	0.05	0.24

(1) Includes Condensables.
(2) Compliance with this limit will ensure compliance with 45CSR§2-4.1.2.
(3) Compliance with this limit will ensure compliance with 45CSR§10-3.1.5.

[45CSR§2-4.1.2.; 45CSR§10-3.1.5.; 45CSR13, R13-2896, Condition 6.1.2.]

5.1.3. To demonstrate compliance with Section 5.1.2., the quantity of natural gas that shall be consumed in each of the 26.3 MMBtu/hr Cryogenic HMO Heaters (S013, S026, S037, S045, S049) shall not exceed 27,377 standard cubic feet per hour and 240×10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in the 54.67 MMBtu/hr Cryogenic HMO Heater (S041) shall not exceed 56,908 standard cubic feet per hour and 499×10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in the 10.09 MMBtu/hr Stabilizer Heater (S056) shall not exceed 10,503 standard cubic feet per hour and 92×10^6 standard cubic feet per year.
[45CSR13, R13-2896, Condition 6.1.3.]

5.1.4. **45CSR2**
Each Cryogenic HMO and Stabilizer Heaters is subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under a. and b.:

a. 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.
[45CSR§2-3.1.]

b. The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:

1. The product of 0.09 and the total design heat input for the fuel burning units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air.

[45CSR§§2-4.1. and -4.1.2.]

[45CSR13, R13-2896, Condition 6.1.4.]

5.1.5. **40 CFR 60, Subpart Dc**

The Cryogenic HMO and Stabilizer Heaters are subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated. Recordkeeping and reporting requirements shall be conducted in accordance with 40 CFR §60.48c. These reports shall be submitted in accordance with the time lines and in the order set forth in 40 CFR §60.48c and submitted to the addresses listed in Section 3.5.3.

[45CSR13, R13-2896, Condition 6.1.5.]

5.2. Monitoring Requirements

5.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 5.1.4. of this permit. Method 9 shall be conducted in accordance with 40 CFR 60, Appendix A.

[45CSR13, R13-2896, Condition 6.2.1.]

5.3. Testing Requirements

5.3.1. Compliance with the visible emission requirements of section 5.1.4 shall be determined in accordance with 40 CFR 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary 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 section 5.1.4. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

[45CSR§2-3.2.; 45CSR13, R13-2896, Condition 6.3.1.]

5.3.2. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established under 5.1.2.a., b., and c.

[45CSR§§2-8.1.2. and -8.1.3.]

5.4. Recordkeeping Requirements

5.4.1. **Records of Fuel Usage**

a. To demonstrate compliance with sections 5.1.1, 5.1.2, and 5.1.3, the permittee shall monitor and record the monthly and twelve-month rolling total of the amount of natural gas consumed in all heaters listed in this section.

[45CSR13, R13-2896, Condition 6.4.1.]

b. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.

[45CSR§2-8.3.3.]

c. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as specified:

1. For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of startup and shutdown, and the quantity of fuel consumed on a monthly basis.

[45CSR§§2A-7.1.a. and -7.1.a.1.]

5.4.2. The permittee shall maintain records of all monitoring data required by Section 5.2.1 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, R13-2896, Condition 6.4.2.]

5.4.3. **40 CFR 60, Subpart Dc**
The Cryogenic HMO and Stabilizer Heaters are subject to the following applicable provisions of 40 CFR 60, Subpart Dc:

a. Except as provided under paragraphs b. and c. of this condition, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
[45CSR16; 40 CFR §60.48c(g)(1)]

b. As an alternative to meeting the requirements of paragraph a. of this condition, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
[45CSR16; 40 CFR §60.48c(g)(2)]

c. As an alternative to meeting the requirements of paragraph a. of this condition, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to 40 CFR 60, Subpart Dc) at that property are natural gas, wood, distillate oil meeting the most current requirements in 40 CFR §60.42c to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.
[45CSR16; 40 CFR §60.48c(g)(3)]

d. All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
[45CSR16; 40 CFR §60.48c(i)]

5.5. Reporting Requirements

5.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40 CFR 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, R13-2896, Condition 6.5.1.]**

5.6. Compliance Plan

5.6.1. None

6.0 Regeneration Gas Heaters [emission unit ID(s): S012, S024, S036, S040, S044, S048]

6.1. Limitations and Standards

6.1.1. **Maximum Design Heat Input.** The maximum design heat input of the Regeneration Gas Heaters shall not exceed 9.7 MMBtu/hr for units S012, S024, S036, S044, and S048 and 19.28 MMBtu/hr for unit S040. **[45CSR13, R13-2896, Condition 7.1.1.]**

6.1.2. Maximum emissions from the Regeneration Gas Heaters shall not exceed the following:

a. The maximum emissions from units S012, S024, S036, S044, and S048 shall not exceed the following individual unit limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S012 S024 S036 S044 S048	Nitrogen Oxides	0.95	4.17
	Carbon Monoxide	0.80	3.50
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.07	0.32
	VOCs	0.05	0.23

(1) Includes Condensables.

b. The maximum emissions from unit S040 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S040	Nitrogen Oxides	1.89	8.28
	Carbon Monoxide	1.59	6.95
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.14	0.63
	VOCs	0.10	0.46

(1) Includes Condensables.

[45CSR13, R13-2896, Condition 7.1.2.]

6.1.3. To demonstrate compliance with Section 6.1.2., the quantity of natural gas that shall be consumed in each of the 9.7 MMBtu/hr Regeneration Gas Heaters (S012, S024, S036, S044, and S048) shall not exceed 10,097 standard cubic feet per hour and 88×10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in the 19.28 MMBtu/hr Regeneration Gas Heater (S040) shall not exceed 20,069 standard cubic feet per hour and 176×10^6 standard cubic feet per year.
[45CSR13, R13-2896, Condition 7.1.3.]

6.2. Monitoring Requirements

6.2.1. None

6.3. Testing Requirements

6.3.1. None

6.4. Recordkeeping Requirements

6.4.1. To demonstrate compliance with sections 6.1.1., 6.1.2., and 6.1.3., the permittee shall monitor and record the monthly and twelve month rolling total of the amount of natural gas consumed in all heaters listed in this section.
[45CSR13, R13-2896, Condition 7.4.1.]

6.5. Reporting Requirements

6.5.1. None

6.6. Compliance Plan

6.6.1. None

7.0 Fire Pumps [emission unit ID(s): S002, S003, S058]

7.1. Limitations and Standards

7.1.1. The quantity of diesel fuel that shall be consumed in each of the 700 HP diesel-fired fire pump engines, Caterpillar Model C18 (S002, S003) shall not exceed 35.9 gallons per hour and 3,590 gallons per rolling twelve (12) month period during non-emergency use.
[45CSR13, R13-2896, Condition 8.1.1.]

7.1.2. Maximum emissions from each of the 700 HP diesel-fired fire pumps, Caterpillar Model C18 (S002, S003) shall not exceed the following limits for the entire life of the engine:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S002 S003	NMHC + Nitrogen Oxides(1)	4.63	0.23
	Carbon Monoxide(1)	4.01	0.20
	$PM_{2.5}/PM_{10}/PM$(1)(2)	0.23	0.01
	Volatile Organic Compounds	4.63	0.23

(1) Calculated using emission limits in Table 4 of 40 CFR 60, Subpart IIII
(2) Includes Condensables
[45CSR16; 40 CFR §§60.4205(c) and 60.4206; Table 4 of 40 CFR 60, Subpart IIII; 45CSR13, R13-2896, Conditions 8.1.2. and 8.1.5.]

7.1.3. **Maximum Annual Operation Limitation.** The maximum yearly hours of operation for each of the 700 HP diesel-fired fire pump engine(s)/generator(s), Caterpillar Model C18 (S002, S003) and for each additional fire pump engine added as authorized under 7.1.8. shall not exceed an annual limit of 100 hours of non-emergency use as recorded with a non-resettable hour meter. Compliance with each Maximum Yearly Operation Limitation shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months for each engine.
[45CSR13, R13-2896, Condition 8.1.4.]

7.1.4. Beginning October 1, 2010, owners and operators of stationary CI ICE subject to 40 CFR 60, Subpart IIII with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel that meets the requirements of 40 CFR §1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
[45CSR16; 40 CFR §60.4207(b)]

7.1.5. **40 CFR 63, Subpart ZZZZ**
S002, S003, and S058 are each subject to all applicable regulations given under 40 CFR 63, Subpart ZZZZ including the following:

a. *Stationary RICE subject to Regulations under 40 CFR 60.* An affected source that meets any of the criteria in paragraphs 40 CFR §§63.6590(c)(1) through (7) must meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR 60, Subpart IIII, for compression ignition engines or 40 CFR 60,

Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63.

[45CSR34; 40 CFR §63.6590(c); 45CSR13, R13-2896, Condition 8.1.6.]

7.1.6. The permittee must satisfy the following compliance requirements:

a. If the permittee is an owner or operator and must comply with the emission standards specified in 40 CFR 60, Subpart IIII, the permittee must do all of the following, except as permitted under paragraph d. of this section:

1. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

2. Change only those emission-related settings that are permitted by the manufacturer; and

3. Meet the requirements of 40 CFR 1068, as they apply to the permittee.

b. The permittee shall comply with the emission standards specified in 40 CFR §60.4205(c) by purchasing an engine certified to the emission standards. The unit must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph d. of this condition.

c. If the permittee owns or operates an emergency stationary ICE, the permittee must operate the emergency stationary ICE according to the requirements in paragraphs c.1. through 3. of this condition. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs c.1. through 3. of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs c.1. through 3. of this condition, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

1. There is no time limit on the use of emergency stationary ICE in emergency situations.

2. The permittee may operate the emergency stationary ICE for the purpose specified in paragraph c.2.i. of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c.3. of this condition counts as part of the 100 hours per calendar year allowed by this paragraph c.2.

i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

3. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph c.2. of this section.

Except as provided in paragraph c.3.i. of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

a. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

b. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

c. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

d. The power is provided only to the facility itself or to support the local transmission and distribution system.

e. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

d. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

1. If the permittee is an owner or operator of a stationary CI internal combustion engine 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 to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[45CSR16; 40 CFR §§60.4211(a), (c), (f), (g), and (g)(3)]

7.1.7. The permittee shall comply with the General Provisions of 40 CFR 60, specified in Table 8 of 40 CFR 60, Subpart IIII.
[45CSR16; 40 CFR §60.4218(a)]

7.1.8. In addition to S002 and S003, the permittee is authorized to construct and operate an additional fire pump engine/generator or multiple engines/generators (S058) not to exceed an aggregate mechanical boilerplate rating of 3,000 HP and to be fired only by diesel. The aggregate quantity of diesel fuel that shall be consumed in the additional engines shall not exceed 153.9 gallons per hour and 15,386 gallons per rolling twelve (12) month period during non-emergency use. The aggregate emissions from the additional fire pumps shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S058	Nitrogen Oxides	31.75	1.59
	Carbon Monoxide	17.26	0.86
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.99	0.05
	Volatile Organic Compounds	31.75	1.59

(1) Includes Condensables.

[45CSR13, R13-2896, Condition 8.1.3.]

7.1.9. The fire pump engine/generator or multiple engines/generators (S058) are each subject to all applicable regulations given under 40 CFR 60, Subpart IIII including the following:

a. Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to Subpart IIII, for all pollutants.

Maximum Engine Power	Model Year(s)	NMHC + NO_X g/kW-hr (g/HP-hr)	CO g/kW-hr (g/HP-hr)	PM g/kW-hr (g/HP-hr)
kW > 560 (HP > 750)	2008+	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)

[45CSR16; 40 CFR §60.4205(c) and Table 4 of 40 CFR 60, Subpart IIII; 45CSR13, R13-2896, Condition 8.1.5.]

7.1.10. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR §§60.4204 and 60.4205 for the entire life of the engine.
[45CSR16; 40 CFR §60.4206]

7.2. Monitoring Requirements

7.2.1. The permittee must install a non-resettable meter to monitor hours of operation.
[45CSR16; 40 CFR §60.4209(a)]

7.2.2. As the annual fuel usage limitations given under 7.1.1. and 7.1.8. above are based on the maximum hourly design capacity fuel usage rates and 100 hours of operation, compliance with the annual fuel usage limitations is based on compliance with 7.1.3.
[45CSR13, R13-2896, Condition 8.2.1.]

7.3. Testing Requirements

7.3.1. Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to 40 CFR 60, Subpart IIII must do so according to 40 CFR §§60.4212(a) through (e).
[45CSR16; 40 CFR §60.4212]

7.4. Recordkeeping Requirements

7.4.1. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
[45CSR16; 40 CFR §60.4214(b)]

7.5. Reporting Requirements

7.5.1. For an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in 40 CFR §60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in paragraphs a. through c. of this section.

a. The report must contain the following information:

i. Company name and address where the engine is located.

ii. Date of the report and beginning and ending dates of the reporting period.

iii. Engine site rating and model year.

iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

v. Hours spent for operation for the purposes specified in 40 CFR §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). However, if the reporting form specific to 40 CFR 60, Subpart IIII is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR §60.4. Beginning on February 26, 2025, submit annual report electronically according to 40 CFR §60.4214(g).

[45CSR16; 40 CFR §60.4214(d)]

7.5.2. If required to submit notifications or reports following the procedure specified in this paragraph, the permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information claimed as CBI.
[45CSR16; 40 CFR §60.4214(g)]

7.6. Compliance Plan

7.6.1. None

8.0 Glycol Dehydration Units [emission unit ID(s): S006]

8.1. Limitations and Standards

8.1.1. The maximum aggregate wet natural gas throughput to Glycol Dehydration Unit S006 shall not exceed 460 mmscf/day or 167,900 mmscf/year.
[45CSR13, R13-2896, Condition 10.1.1.]

8.1.2. The maximum glycol recirculation rate in the Glycol Dehydration Unit (S006) shall not exceed 40 gallons per minute limit.
[45CSR13, R13-2896, Condition 10.1.2.]

8.1.3. The maximum aggregate controlled emissions generated from the Glycol Dehydration Unit (S006), including the still vent and the flash tank, but not including the combustion exhaust emissions from the Reboiler, shall not exceed the limits given in the following table:

a. Glycol Dehydration Unit S006:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
VOCs	1.78	7.80
n-Hexane	*0.04*	*0.17*
Benzene	*0.03*	*0.13*
Toluene	*0.05*	*0.23*
Xylene	*0.03*	*0.13*
Total HAPs	0.15	0.66

(1) Emissions based on GLYCalc Version 4.0 using wet gas throughputs as limited under 8.1.1. and a 10% safety factor (on uncontrolled emissions).

[45CSR13, R13-2896, Condition 10.1.3.]

8.1.4. Still vent and flash tank vapors from S006 shall be routed to the Hot Oil Heater (S001: C001) and used as fuel.
[45CSR13, R13-2896, Condition 10.1.4.]

8.1.5. **40 CFR 63, Subpart HH: Exemptions**
Exemptions. The owner or operator of an area source is exempt from the requirements of 40 CFR §63.764(d) if the criteria listed in 40 CFR §§63.764(e)(1)(i) or (ii) are met, except that the records of the determination of these criteria must be maintained as required in 40 CFR §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, as determined by the procedures specified in 40 CFR §63.772(b)(2).

[45CSR13, R13-2896, Condition 10.1.5.; 45CSR34; 40 CFR §§63.764(e)(1) and (e)(1)(ii)]

8.1.6. The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph a. or b. of this condition. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

a. 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); or

b. The owner or operator shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in 40 CFR §§63.772(a)(1)(i) or (ii), or an alternative method according to 40 CFR §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

[45CSR34; 40 CFR §63.772(b)(2)]

8.1.7. Any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAPs (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination and each year thereafter, using gas composition data measured during the preceding 12 months.
[45CSR34; 40 CFR §63.760(c)]

8.1.8. At all times the owner or operator 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 CFR §63.764(j)]

8.2. Monitoring Requirements

8.2.1. For the purposes of demonstrating compliance with the maximum wet gas throughput limit set forth in 8.1.1., the permittee shall monitor and maintain monthly and rolling twelve-month records of the wet gas throughput of the Glycol Dehydration Unit.
[45CSR13, R13-2896, Condition 10.2.1.]

8.2.2. Compliance with the Maximum Glycol Recirculation limitation set forth in 8.1.2. shall be determined using an average of a minimum of quarterly readings of the actual glycol pump(s) rate. If more than one pump is operating simultaneously then the rate of each operating pump shall be recorded and totaled for compliance purposes.
[45CSR13, R13-2896, Condition 10.2.2.]

8.2.3. Representative gas sample collection and analysis frequency for the dehydration unit shall be determined as set forth in the schedule provided in the following table:

Wet Gas Sampling and Analysis Frequency for Dehydration Units Based on Potential HAP Emission Rates	
Each dehydration unit exempt from §63.764(d) requirements and with federally enforceable controls	Upon request by the Secretary.
Each dehydration unit exempt from §63.764(d) requirements and without federally enforceable controls	An initial compliance evaluation within 180 days of registration issuance or within 180 days of startup of the dehydration unit, whichever is later.

[45CSR13, R13-2896, Condition 10.2.3.]

8.3. Testing Requirements

8.3.1. The permittee shall sample wet natural gas in accordance with the Gas Processor Association (GPA) Method 2166 and analyze the samples in accordance with GPA Method 2286. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date.

Note: The DAQ defines a representative wet gas sample to be one that is characteristic of the average gas composition dehydrated throughout a calendar year. If an isolated sample is not indicative of the annual average composition, then a company may opt to produce a weighted average based on throughput between multiple sampling events, which can be used to define a more representative average annual gas composition profile.

[45CSR13, R13-2896, Condition 10.3.1.]

8.4. Recordkeeping Requirements

8.4.1. The permittee shall maintain records of the actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with 40 CFR §63.772(b)(2).
[45CSR34; 40 CFR §63.774(d)(1)(ii)]

8.5. Reporting Requirements

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

8.6. Compliance Plan

8.6.1. None

9.0 40 CFR 60, Subparts Kb and Kc Storage Tanks [emission unit ID(s): TK-802, TK-2802, TK-3802, TK-4802, TK-5802, TK-6802, TK-7802, VRU]

9.1. Limitations and Standards

9.1.1. Each of the Natural Gasoline Storage Tanks (TK-802, TK-2802, TK-3802, TK-4802, TK-5802, and TK-6802) will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from these tanks shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.
[45CSR13, R13-2896, Condition 12.1.1.]

9.1.2. The Refrigerated Propane Storage Tank (TK-7802) shall utilize the VRU to recapture propane product that flashes-off from the storage tank, re-condense the product, and then route it back to the storage tank.
[45CSR13, R13-2896, Condition 12.1.2.]

9.1.3. The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for each storage tank listed in this section.
[45CSR13, R13-2896, Condition 12.1.3.]

9.1.4. The Natural Gasoline Storage Tanks TK-802 and TK-2802 are subject to all applicable requirements of 40 CFR 60, Subpart Kb including the following:

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:
[45CSR16; 40 CFR §60.112b(a)]

1. A closed vent system and control device meeting the following specifications:

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR 60, Subpart VV, §60.485(b).
[45CSR16; 40 CFR §60.112b(a)(3)(i)]

ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR §60.18) of the General Provisions.
[45CSR16; 40 CFR §60.112b(a)(3)(ii)]

[45CSR13, R13-2896, Condition 12.1.4.] (TK-802 and TK-2802)

9.1.5. The owner or operator of each source that is equipped with a closed vent system and control device as required in 40 CFR §60.112b(a)(3) or (b)(2) (other than a flare) is exempt from 40 CFR §60.8 of the General Provisions and shall meet the following requirements.

a. Submit for approval by the Administrator as an attachment to the notification required by 40 CFR §60.7(a)(1) or, if the facility is exempt from 40 CFR §60.7(a)(1), as an attachment to the notification required by 40 CFR §60.7(a)(2), an operating plan containing the information listed below.

1. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 CFR 60, Subpart Kb, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816°C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

2. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

b. Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph a. of this condition, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

[45CSR16; 40 CFR §60.113b(c)] (TK-802 and TK-2802)

9.1.6. The Natural Gasoline Storage Tanks TK-3802 through TK-6802 and the Refrigerated Propane Storage Tank TK-7802 are subject to all applicable requirements of 40 CFR 60, Subpart Kc including the following:

a. All standards including emission limitations shall apply at all times, including periods of startup, shutdown, and malfunction. As provided in 40 CFR §60.11(f), 40 CFR §60.110c(g) supersedes the exemptions for periods of startup, shutdown, and malfunction in Subpart A of 40 CFR 60.
[45CSR16; 40 CFR §60.110c(g)] (TK-3802 through TK-7802)

b. **General storage vessel control requirements.** The permittee must equip and operate each storage vessel affected facility meeting the thresholds in 40 CFR §60.110c(c)(1) as specified in paragraphs b.1. and b.2. of this condition.

1. For TK-3802 to TK-6802, the permittee has elected to install and operate a closed vent system routed to a fuel gas system as specified in 40 CFR §60.112c(d).

2. For TK-7802, the permittee has elected to install and operate a closed vent system routed to a process as specified in 40 CFR §60.112c(d).

[45CSR16; 40 CFR §§60.112c(a) and (a)(1)] (TK-3802 through TK-7802)

c. For each storage vessel affected facility complying with the closed vent system routed to a control device, fuel gas system, or process provisions specified in 40 CFR §60.112c(d) regardless of size and

for each storage vessel with a design capacity greater than or equal to 1,000,000 gallons containing a volatile organic liquid (VOL) that, as stored, has a maximum true vapor pressure equal to or greater than 1.5 psia, the permittee must comply with the requirements in 40 CFR §60.112c(e).
[45CSR16; 40 CFR §60.112c(a)(3)] (TK-3802 through TK-7802)

d. The permittee must meet the applicable testing, monitoring, and inspection requirements specified in 40 CFR §60.113c, recordkeeping requirements specified in 40 CFR §60.115c, and reporting requirements specified in 40 CFR §60.116c.
[45CSR16; 40 CFR §60.112c(a)(4)] (TK-3802 through TK-7802)

9.1.7. **Requirements for closed vent system routed to a fuel gas system or process.** The permittee must design, install, and operate each affected storage vessel with a closed vent system that routes to a fuel gas system or process as specified in paragraphs a. through c. of this condition.

a. The storage vessel must be designed and operated to be routed through a closed vent system to a fuel gas system or process at all times the storage vessel contains VOL without venting to the atmosphere through either meeting the storage vessel design requirements specified in paragraph a.1. of this condition or the vapor recovery system design requirements specified in paragraph a.2. of this condition. Compliance with this requirement must be demonstrated according to paragraph a.3. of this condition. Any vacuum breaking device on the storage vessel must close while the storage vessel is still under vacuum of at least -0.1 inches of water (-0.0036 psig or -0.025 kPa gauge).

1. The storage vessel must be designed to operate at a gauge pressure of no less than 1 psi greater than the maximum true vapor pressure of the stored liquid and any back pressure anticipated when the storage vessel is filled at its maximum rate without venting to the atmosphere.

2. The vapor recovery system must be designed and operated to maintain the pressure in each storage vessel routed to a control device below the venting pressure of that storage vessel.

3. The permittee must equip each pressure relief device and vacuum breaking device on a storage vessel with a device(s) or use a monitoring system that is capable of meeting the requirements in paragraphs a.3.i. through iii. of this condition. If all emissions from a pressure relief device are routed through a closed vent system to a control device, process, or fuel gas system, then the permittee is not required to comply with the requirements of this paragraph a.3.

i. Identifying the pressure release.

ii. Recording the time and duration of each pressure release.

iii. Notifying operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device or vacuum breaking device itself or must be associated with each storage vessel to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

b. Except for closed vent systems operated and maintained under negative pressure, each closed vent system must meet the requirements specified in paragraphs b.1. through 3. of this condition.

1. The closed vent system must be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 parts per million by volume (ppmv) above background, as determined using Method 21 of Appendix A-7 to 40 CFR 60 as specified in 40 CFR §§60.113c(c)(2) and (3), and as determined by observations for visible, audible, and olfactory indications of leaks. Visible, audible, and olfactory inspections must be performed quarterly and Method 21 of Appendix A-7 instrument monitoring must be conducted at least annually.

2. Except for pressure relief devices and except for open-ended valves or lines that use a cap, blind flange, plug, or second valve and follow the requirements specified in 40 CFR §§60.482-6(a)(2), (b), and (c) or follow requirements codified in another regulation that are the same as 40 CFR §§60.482-6(a)(2), (b), and (c), the permittee must comply with the provisions of either paragraph b.2.i. or ii. of this condition for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

    i. Properly install, maintain, and operate a flow indicator that is capable of taking readings every 15 minutes. Install the flow indicator at the entrance to any bypass line.

    ii. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration.

3. The permittee must equip each pressure relief device on a closed vent system with a device(s) or use a monitoring system that is capable of meeting the requirements in paragraphs b.3.i. through iii. If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, process, or fuel gas system, then the permittee is not required to comply with the requirements of this paragraph b.3.

    i. Identifying the pressure release.

    ii. Recording the time and duration of each pressure release.

    iii. Notifying operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device itself or must be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

c. If emissions are routed from a storage vessel to a fuel gas system or process, the permittee must meet the requirements in paragraphs c.1. through 4. of this condition, as applicable.

1. The fuel gas system or process must be operating at all times when emissions from an affected storage vessel are routed to it.

2. If all emissions are routed to a process, the VOL in the emissions must meet one or more of the conditions specified in paragraphs c.2.i. through iv. of this condition and the permittee must comply with the compliance determination requirements in paragraph c.3. of this condition.

i. Recycled and/or consumed in the same manner as a material that fulfills the same function in that process.

ii. Transformed by chemical reaction into materials that are not regulated materials.

iii. Incorporated into a product.

iv. Recovered.

3. To demonstrate compliance with paragraph c.2. of this condition for an affected storage vessel, the permittee must prepare a design evaluation (or engineering assessment) that demonstrates the extent to which one or more of the conditions specified in paragraphs c.2.i. through iv. of this are being met.

4. If emissions from an affected storage vessel are routed to a fuel gas system, the permittee must submit the statement of connection for fuel gas systems specified in 40 CFR §60.116c(a)(7).

[45CSR16; 40 CFR §§60.112c(d)(1), (d)(2), and (d)(6)] (TK-3802 through TK-7802)

9.1.8. **Requirements for storage vessel degassing.** For each storage vessel meeting the specifications in 40 CFR §60.112c(a)(3), the permittee must meet the requirements in paragraphs a. and b. of this condition during emptying and degassing of a storage vessel until the vapor space concentration in the storage vessel is less than 10 percent of the lower explosive limit (LEL) or, for nonflammable liquids, 5,000 ppmv as methane. The permittee must determine the LEL or methane concentration using process instrumentation or a portable measurement device and follow procedures for calibration and maintenance according to manufacturer's specifications. The permittee must check instrument calibration and check the instrumental offset response each day the instrument is used and prior to discontinuing controlled degassing to confirm the accuracy of the instrument's readings.

a. Remove liquids from the storage vessel as much as practicable. Chemicals or a diluent such as a distillate fuel may be introduced into the storage vessel for the purpose of reducing vapor concentration before or during active degassing.

b. Comply with the following:

1. Reduce total VOC emissions by venting emissions through a closed vent system to a flare or enclosed combustion device for which the permittee elects to comply with the flare provisions and meet the requirements specified in paragraph b.1.i. of this condition (40 CFR §60.112c(d)(5)).

i. The permittee must meet all applicable requirements specified in 40 CFR §§63.670(b) through (g) and (i) through (n) except as provided in the following paragraphs:

a. For the purpose of 40 CFR 60, Subpart Kc,

1. The term "regulated materials" refers to "vapors from a storage vessel affected facility";

2. The term "pilot flame" means "pilot flame or flare flame";

3. The terms "petroleum refinery" and "refinery" mean "storage vessel affected facility".

b. For visible emissions, use the following text instead of 40 CFR §63.670(c): The owner or operator shall operate with no visible emissions, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours, when regulated material is routed to the flare. The permittee must monitor for visible emissions from the flare as specified below:

1. If visible emissions are observed for more than 1 continuous minute during normal duties, visible emissions observation using Method 22 of Appendix A-7 to 40 CFR 60 must be conducted for 2 hours or until 5-minutes of visible emissions are observed.

[45CSR16; 40 CFR §60.113c(c)(1)(iv)(A)]

c. The phrase "and the flare vent gas flow rate is less than the smokeless design capacity of the flare" in 40 CFR §63.670(d) for flare tip velocity requirements does not apply.

[45CSR16; 40 CFR §60.112c(d)(5)]

2. Reduced total VOC emissions by 98 weight percent by venting emissions through a closed vent system to any combination of non-flare control devices.

3. Reduce total VOC emissions by routing emissions to a fuel gas system or process and meet the requirements specified in Condition 9.1.7.c. (40 CFR §60.112c(d)(6)).

[45CSR16; 40 CFR §§60.112c(e), (e)(1), and (e)(2)] (TK-3802 through TK-7802)

9.2. Monitoring Requirements

9.2.1. To demonstrate compliance with section 9.1.3., the permittee shall monitor the vapor recovery unit system in accordance with the plans and specifications and manufacturer's recommendations.
[45CSR13, R13-2896, Condition 12.2.1.]

9.2.2. For each storage vessel subject to the provision in 40 CFR §60.112c(a), the permittee must meet the requirements of paragraph a. of this condition if emissions are routed through a closed vent system to a fuel gas system or process. The permittee must also meet the applicable requirements of paragraph b. of this condition.

a. **Monitoring of the closed vent system**. For each source that is equipped with a closed vent system and routes to a fuel gas system or process to meet the requirements in 40 CFR §60.112c(d), the permittee must conduct monitoring and inspections of the closed vent system as specified in paragraph a.1. of this condition and repair leaks as specified in paragraph a.2. of this condition.

1. For each closed vent system, the permittee must conduct the instrument monitoring in paragraphs a.1.i. through iii. of this condition. The permittee must conduct the initial instrument monitoring within 180 days of an affected facility being connected to the closed vent system. Subsequent instrument inspections must be conducted within 365 days of the previous inspection. Visual, audible, and olfactory inspections must be conducted quarterly.

i. Conduct instrument monitoring using the procedures in Method 21 of Appendix A-7 to 40 CFR 60. The detection instrument must meet the performance criteria of Method 21 of Appendix A-7, except that the instrument response factor criteria in section 8.1.1 of Method 21 of Appendix A-7 must be for the average composition of the fluid and not for each individual organic compound in the stream. For streams that contain nitrogen, air, water, or other inerts that are not organic VOC, the representative stream response factor must be determined on an inert-free basis. The instrument reading that defines a leak is 500 ppmv (as methane). The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. The calibration gases in paragraph a.1.i.a. and b. of this condition must be used. The drift assessment specified in paragraph a.1.i.c. of this condition must be performed at the end of each monitoring day.

   a. Zero air (less than 10 ppm of hydrocarbon in air).

   b. A mixture of methane in air at a concentration of approximately 500 ppmv.

   c. At the end of each monitoring day, 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 to 40 CFR 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. If a calibration drift assessment shows a negative drift of more than 10 percent, then re-monitor all equipment monitored since the last calibration with instrument readings between the leak definition and the leak definition multiplied by (100 minus the percent of negative drift) divided by 100. 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 leak definition and below the leak definition multiplied by (100 plus the percent of positive drift) divided by 100 monitored since the last calibration may be re-monitored.

ii. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements of paragraph a.1.i. of this section if the conditions of paragraph a.1.ii.a. and b. of this condition are met.

   a. The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph a.1.i. of this condition; and

   b. The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.

iii. Any parts of the closed vent system that are designated as difficult-to-inspect are exempt from the inspection requirements of paragraph a.1.i. of this section if the provisions of paragraphs a.1.iii.a. and b. apply.

a. The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and

b. The owner or operator has a written plan that requires inspection of the equipment at least once every 60 calendar months.

2. Leaks, as indicated by an instrument reading greater than 500 ppmv or emissions detected by visible, audible, and olfactory methods, shall be repaired as soon as practical following the requirements outlined in paragraphs a.2.i. and ii. of this condition.

i. Except as allowed by paragraph a.2.ii. of this condition, a first attempt at repair shall be made no later than 5 days after the leak is detected. Repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

ii. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical.

b. **Requirements for determining maximum true vapor pressure.** For each affected storage vessel, the permittee must determine the maximum true vapor pressure of the stored VOL according to the requirements specified in paragraphs b.1. and 2. of this condition. For storage vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For storage vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

1. Prior to the initial filling of the storage vessel or to the refilling of the storage vessel with a new VOL, the highest maximum true vapor pressure for the range of anticipated liquids to be stored, including mixtures for which the permittee can define the range of concentrations for constituents in the mixture or with a known maximum Reid vapor pressure, must be determined using any one of the methods described in paragraphs b.1.i. through iv. of this condition.

i. As obtained from standard reference texts.

ii. ASTM D6377-20 (incorporated by reference; see 40 CFR §60.17). Perform the method using a vapor-to-liquid ratio of 4:1, which is expressed in the method as VPCR.

iii. ASTM D6378-22 (incorporated by reference; see 40 CFR §60.17). Perform the method using a vapor-to-liquid ratio of 4:1.

iv. As measured by an appropriate method as approved by the Administrator.

2. For each affected storage vessel storing a mixture of indeterminate composition or a mixture of unknown variable composition, the initial determination of the vapor pressure required by paragraph b.1. of this condition must be a physical test using one of the methods specified in paragraphs b.1.ii. through iv. of this condition. Additional physical tests using one of the methods specified in

paragraphs b.1.ii. through iv. of this condition are required at least once every 6 calendar months thereafter as long as the measured vapor pressure remains below the applicable thresholds in 40 CFR §§60.110c(c)(1), (c)(2), (d)(1), or (d)(2). If the vapor pressure measured under this paragraph b.2. exceeds the threshold defined in 40 CFR §60.110c(c)(1), (c)(2), (d)(1), or (d)(2), the permittee must meet the requirements in 40 CFR §60.112c and the corresponding requirements in 40 CFR §§60.113c through 60.116c. If the storage vessel does not have controls meeting the requirements in 40 CFR §60.112c, the storage vessel must be emptied and taken out of service until controls meeting the requirements in 40 CFR §60.112c can be installed. Upon compliance with the provisions in 40 CFR §60.112c, no additional vapor pressure monitoring is required.

[45CSR16; 40 CFR §§60.113c(c), (c)(2), (c)(3), and (d)] (TK-3802 through TK-7802)

9.3. Testing Requirements

9.3.1. None

9.4. Recordkeeping Requirements

9.4.1. **Record of Maintenance of Vapor Recovery Unit.** The permittee shall maintain accurate records of the vapor recovery unit equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2896, Condition 12.3.1.]

9.4.2. **Record of Malfunction of Vapor Recovery Unit.** The permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the vapor recovery unit 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, R13-2896, Condition 12.3.2.]

9.4.3. After installing control equipment in accordance with 40 CFR §§60.112b(a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

The permittee shall keep copies of all records required by this section, except for the record required by 9.4.3.a., for at least two years. The record required by 9.4.3.a. will be kept for the life of the control equipment.

a. A copy of the operating plan.

b. A record of the measured values of the parameters monitored in accordance with 40 CFR §60.113b(c)(2).

[45CSR16; 40 CFR §§60.115b and 60.115b(c)] (TK-802 and TK-2802)

9.4.4. The permittee must comply with the following recordkeeping requirements:

a. The permittee shall keep copies of all records required by 40 CFR 60, Subpart Kb, except for the record required by 9.4.4.b., for at least 2 years. The record required by 9.4.4.b. will be kept for the life of the source.

b. The owner or operator of each storage vessel as specified in 40 CFR §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

[45CSR16; 40 CFR §§60.116b(a) and (b)] (TK-802 and TK-2802)

9.4.5. **Recordkeeping requirements under 40 CFR 60, Subpart Kc**

a. Except as otherwise specified in paragraphs b. through d. of this condition, the permittee must keep copies of all records required by 40 CFR §60.115c and all reports required under 40 CFR §60.116c for at least 5 years.

b. For each storage vessel affected facility as specified in 40 CFR §60.110c(a), the permittee must keep readily accessible records for the life of the source showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

c. Each vessel equipped with a closed vent system routed to a control device, fuel gas system, or process meeting the specification of 40 CFR §60.112c(d) is exempt from the requirements of 40 CFR §60.115c(c).

d. For each storage vessel as specified in 40 CFR §60.112c(a), the permittee must keep records as required in 40 CFR §§60.115c(d)(1) through (5), as applicable depending upon the control equipment installed to meet the requirements of 40 CFR §60.112c.

1. After installing a closed vent system routed to a fuel gas system or process to comply with the provisions in 40 CFR §60.112c(d), the permittee must keep the following records, as well as the records in 40 CFR §§60.115c(d)(4) and (5), as applicable.

i. Monitoring for the closed vent system conducted under 40 CFR §60.113c(c)(2), including the date of inspection.

ii. The written plan(s) required under 40 CFR §§60.113c(c)(2)(ii) and (iii) for unsafe-to-inspect and difficult-to-inspect portions of the closed vent system.

iii. For each leak detected during the monitoring conducted under 40 CFR §§60.113c(c)(2) and (3), the permittee must record: the date the leak was detected; the location of the leak; the method used to detect the leak (Method 21 of Appendix A-7 to 40 CFR 60 or visible, audible, and olfactory methods); and the maximum concentration reading obtained by Method 21 of Appendix A-7, if applicable. For each repair attempt, the permittee must record: the date of each repair attempt; the actions taken to repair the leak during each repair attempt; and date the repair was completed. If the repair is delayed, the permittee must record the reason for the delay and the date the repair is expected to be completed.

iv. For each bypass line, maintain a record of the following, as applicable: readings from the flow indicator; each inspection of the seal or closure mechanism; the date and time of each instance when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out.

v. For each pressure relief device or vacuum breaking device on a storage vessel or closed vent system required to be monitored according to 40 CFR §60.112c(d)(1)(iii) or (d)(2)(iii): the device type; the monitoring device or system used for the device; data from the device or system indicating whether a pressure release occurred; and the date, time, and duration of each pressure release, if applicable.

e. For storage vessels required to meet the degassing requirements in 40 CFR §60.112c(a)(3), the permittee must maintain records necessary to demonstrate compliance with the requirements in 40 CFR §60.112c(e) including, if appropriate, records of existing standard site procedures used to empty and degas (deinventory) equipment for safety purposes.

[45CSR16; 40 CFR §§60.115c(a), (b), (c)(2), (d), (d)(3), (d)(3)(iii) to (vii), and (e)] (TK-3802 through TK-7802)

9.5. Reporting Requirements

9.5.1. Upon request by the Director, the permittee shall report deviations within a requested time from any occurrences when the control device was operated outside of the parameters defined in the monitoring plan. **[45CSR13, R13-2896, Condition 12.3.3.]**

9.5.2. **Initial notification requirements for 40 CFR 60, Subpart Kc.** The permittee must submit initial notifications to the Administrator within 60 days after becoming an affected storage vessel. Once the report template for 40 CFR 60, Subpart Kc has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 1 year, the permittee must submit all subsequent initial notifications using the appropriate electronic report template on the CEDRI website for 40 CFR 60, Subpart Kc and following the procedure specified in 40 CFR §60.116c(f). The date report templates become available will be listed on the CEDRI website. For each storage vessel affected facility subject to the standards in 40 CFR §60.112c, include the following information in the initial notification:

a. The following general facility information:

1. Facility name;

2. Facility physical address, including city, county, state, and zip code.

3. Latitude and longitude of facility's physical location. Coordinates must be in decimal degrees with at least five decimal places; and

4. The following information for the facility contact person:

i. Name;

ii. Mailing address, including city, county, State, and zip code;

iii. Telephone number; and

iv. Email address.

b. Identification of the storage vessel(s) subject to 40 CFR 60, Subpart Kc.

c. Capacity (in gallons) of each storage vessel.

d. Maximum true vapor pressure of the liquid stored (in psia) in each storage vessel.

e. Indication of the standards for which the storage vessel complies [40 CFR §§60.112c(b); 60.112c(c); 60.112c(d); 60.112c(e)].

f. If emissions are routed to a process, submit the information specified in 40 CFR §§60.112c(d)(6)(ii) and (iii).

g. If emissions are routed to a fuel gas system, as specified in 40 CFR §60.112c(d)(6)(iv), submit a statement that the emission stream is connected to the fuel gas system.

[45CSR16; 40 CFR §§60.116c(a), (a)(1) to (a)(5), (a)(7), and (a)(8)] (TK-3802 through TK-7802)

9.5.3. **Reporting requirements for semiannual reports under 40 CFR 60, Subpart Kc.**

a. **Semiannual reports under 40 CFR 60, Subpart Kc.** The permittee must submit to the Administrator semiannual reports with the applicable information in 40 CFR §§60.116c(c)(1) through (12) by the dates specified in 40 CFR §60.116c(d). For 40 CFR 60, Subpart Kc, the semiannual reports supersede the excess emissions and monitoring systems performance report and/or summary report form required under 40 CFR §60.7. Once the report template for 40 CFR 60, Subpart Kc has been available on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 1 year, the permittee must submit all subsequent reports using the appropriate electronic report template on the CEDRI website for 40 CFR 60, Subpart Kc and following the procedure specified in 40 CFR §60.116c(f). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in 40 CFR 60, Subpart Kc, regardless of the method in which the report is submitted.

1. Report the following general facility information:

i. Facility name;

ii. Facility physical address, including city, county, and state;

iii. Latitude and longitude of facility's physical location. Coordinates must be in decimal degrees with at least five decimal places;

iv. The following information for the facility contact person:

a. Name;

b. Mailing address;

c. Telephone number; and

d. Email address.

v. Date of report and beginning and ending dates of the reporting period. The permittee is no longer required to provide the date of report when the report is submitted via CEDRI; and

vi. Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces the requirement in this paragraph.

2. After installing a closed vent system that routes to a fuel gas system, or process to comply with 40 CFR §60.112c, report the following.

i. For each inspection conducted under 40 CFR §60.113c(c)(2), identification of the closed vent system, the date of inspection, the type of inspection (Method 21 of Appendix A-7 to 40 CFR 60 or visible, audible, and olfactory methods) and summary result of the inspection (no leaks detected or leaks were detected). For each leak detected, provide an identification of the part of the closed vent system associated with the leak, the date of the first attempt at repair, and the date of successful repair or anticipated repair if the repair is delayed.

ii. The start date and time, duration in hours, and an estimate of the mass quantity in pounds of VOL released for times when flow is detected or emissions are diverted from the control device through a bypass line while a storage vessel affected facility vented to the closed vent system contains VOL or is being degassed.

3. For pressure relief devices on a storage vessel or closed vent system subject to 40 CFR §60.112c(d)(1)(iii) or (d)(2)(iii), report each pressure release to the atmosphere, including pressure relief device identification name or number, the start date, start time, and duration (in minutes) of the pressure release; and an estimate of the mass quantity in pounds of VOL released.

4. For vacuum breaking devices on a storage vessel subject to 40 CFR §§60.112c(d) and (d)(1)(iii), report the following information for each time the vacuum breaking device failed to close prior to the storage vessel reaching atmospheric pressure: identification name or number of vacuum breaking device; the start date, start time, and duration (in minutes) of the pressure release; and an estimate of the mass quantity in pounds of VOL released.

b. **Timeframe for semiannual report submissions.**

1. The first semiannual report will cover the period starting with the date the source becomes an affected facility subject to 40 CFR 60, Subpart Kc and ending June 30 or December 31, whichever date is earlier. For example, if the source becomes an affected facility on April 15, the first semiannual report would cover the period from April 15 to June 30. The first semiannual report must be submitted on or before the last day of the month 2 months after the last date covered by the semiannual report. In this example, the first semiannual report would be due August 31.

2. Subsequent semiannual reports will cover subsequent 6 calendar month periods (January 1 through June 30 or July 1 through December 31, as applicable) with each report due on or before the last day of the month 2 months after the last date covered by the semiannual report (August 31 or February 28 or 29, as applicable).

3. For each affected facility that is subject to permitting regulations pursuant to 40 CFR 70 or 71, if the delegated authority has established dates for submitting semiannual reports pursuant to 40 CFR §70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent semiannual reports according to the dates the delegated authority has established instead of the dates in paragraphs b.1. and 2. of this condition.

[45CSR16; 40 CFR §§60.116c(c), (c)(1), (c)(8), (c)(8)(ii), (c)(8)(iii), (c)(11), (c)(12), and (d)] (TK-3802 through TK-7802)

9.5.4. **Requirements for electronically submitting reports under 40 CFR 60, Subpart Kc.** For notifications or reports that must be submitted following the procedures specified in 40 CFR §60.116c(f), the permittee must submit notifications or reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information claimed as confidential business information (CBI).
[45CSR16; 40 CFR §60.116c(f)]

9.6. Compliance Plan

9.6.1. None

10.0 Flare [emission unit ID(s): S004A]

10.1. Limitations and Standards

10.1.1. The permittee shall utilize a non-assisted Callidus CAL-MP staged, multi-point ground flare system (with a maximum aggregate pilot light heat input of 1.629 MMBtu/hr), designated as S004A, for control of potential emissions from maintenance events, equipment blowdowns, pressure relief valves, and other controlled sources. The flare shall have a maximum design capacity of 19.8 mmscf/hr.
[45CSR13, R13-2896, Condition 13.1.1.]

10.1.2. The Flare (S004A) shall operate according to the following requirements:

a. Maximum aggregate combustion exhaust emissions (not including uncombusted pass-through emissions of VOCs) from operation of the Flare (including those contributed by the pilot light) shall not exceed the following during routine maintenance events, equipment blowdowns, from pressure relief valves, and other controlled sources:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	1,539.61	14.61
Carbon Monoxide	3,073.64	29.17
$PM_{2.5}/PM_{10}/PM^{(1)}$	30.66	0.50
VOCs	22.19	0.36

(1) Compliance with this limit will ensure compliance with 45CSR§6-4.1 (Condition 10.1.4.a.).

b. Based on the minimum VOC destruction and removal efficiency (DRE) of 98.0% as given under 10.1.6., maximum emissions of uncombusted pass-through VOCs and HAPs (generated during routine maintenance events, equipment blowdowns, and from pressure relief valves) emitted at the Flare (as uncombusted pass-through emissions) shall not exceed 10,153 lb/hr and 39.38 ton/year of VOCs and 4.53 lb/hr and 0.12 ton/year of HAPs.

[45CSR13, R13-2896, Condition 13.1.2.]

10.1.3. The total heat input of waste gases sent to the Flare during routine pigging events, equipment and site-wide blowdowns, the ethane treater flash tanks, irregular process vents, and from the closed vent system shall not exceed 197,459 MMBtu per rolling twelve-month period.
[45CSR13, R13-2896, Condition 13.1.3.]

10.1.4. The Flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

a. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$Emissions\ (lb/hr) = F \times Incinerator\ Capacity\ (ton/hr)$$

Where, the factor, F, is either 5.43 for an incinerator with a capacity of less than 15,000 lb/hr or 2.72 for an incinerator with a capacity of 15,000 lb/hr or greater.

[45CSR§6-4.1.]

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

c. The provisions of 45CSR§6-4.3. 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.]

d. 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.]

e. 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.]

f. 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 CFR 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.
[45CSR§6-7.1.]

g. The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above.
[45CSR§6-7.2.]

[45CSR13, R13-2896, Condition 13.1.4.]

10.1.5. A pilot flame must be present at all times of operation of the Flare. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
[45CSR13, R13-2896, Condition 13.1.5.]

10.1.6. The Flare shall be operated and designed in accordance with the information filed in permit application R13-2896F to achieve a VOC DRE of 98.0%.
[45CSR13, R13-2896, Condition 13.1.7.]

10.1.7. The inlet gas flow rate of the Flare must be equal to or less than the maximum specified by the manufacturer.
[45CSR13, R13-2896, Condition 13.1.8.]

10.2. Monitoring Requirements

10.2.1. In order to demonstrate compliance with the requirements of 10.1.2., 10.1.3., and 10.1.4.a., the permittee shall monitor the aggregate throughput and heat input of waste gases sent to the Flare on a monthly basis.
[45CSR13, R13-2896, Condition 13.2.1.]

10.2.2. To demonstrate compliance with the emission limits of 10.1.2. and the flame requirements of 10.1.5., the presence of a flame shall be continuously monitored using a duplex thermocouple or any other equivalent device to detect the presence of a flame. The presence or absence of the flame shall be recorded in the facility's data acquisition system at 15-minute intervals. The absence of the pilot flame shall be defined as an excursion per the CAM Plan under 40 CFR Part 64.
[45CSR13, R13-2896, Condition 13.2.2.; 45CSR§30-5.1.c.; 40 CFR §64.6(c)]

10.2.3. The permittee shall meet the following Visible Emissions Requirements for the Ground Flare:

a. To demonstrate compliance with the visible emissions requirements of 45CSR6, the permittee shall conduct the following visible emission checks and/or opacity monitoring and recordkeeping for the Ground Flare:

1. The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. 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 CFR 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR 60, Appendix A, Method 9 certification course. The observation period (Section 11 of EPA Method 22) shall be a minimum of one (1) hour each calendar month during flaring operation;

2. As the Ground Flare is of smokeless design, any observation of visible emissions will indicate incorrect operation of the flare. Therefore, upon the observation of visible emissions, the permittee shall, at the next available safe opportunity, cease operation of the flare and attempt to correct the problem. After an attempt to correct the problem, the permittee shall then conduct a minimum of one (1) hour of visible emissions observations according to 10.2.3.a. during the flare operation;

3. The permittee shall maintain records of all monitoring data required by 10.2.3. 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);

4. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40 CFR 60, Appendix A, Method 9 or 22 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, R13-2896, Condition 13.2.3.]

10.2.4. **Proper maintenance.** At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[45CSR§30-5.1.c.; 40 CFR §64.7(b)]

10.2.5. **Continued operation.** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[45CSR§30-5.1.c.; 40 CFR §64.7(c)]

10.2.6. **Response to excursions or exceedances.**

a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c.; 40 CFR §64.7(d)]

10.2.7. **Documentation of need for improved monitoring.** After approval of monitoring under 40 CFR Part 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for

which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[45CSR§30-5.1.c.; 40 CFR §64.7(e)]

10.2.8. **Quality Improvement Plan (QIP) Requirements.** Based on the results of a determination made under 40 CFR §64.7(d)(2), the Administrator or the permitting authority may require the permittee to develop and implement a QIP. If required, the QIP shall be developed and implemented in accordance with 40 CFR §§64.8(b) through (e).
[45CSR§30-5.1.c.; 40 CFR §64.8]

10.3. Testing Requirements

10.3.1. None

10.4. Recordkeeping Requirements

10.4.1. For the purpose of demonstrating compliance with Sections 10.1.5. and 10.2.2., the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.
[45CSR13, R13-2896, Condition 13.2.4.]

10.4.2. **General recordkeeping requirements.**

a. The owner or operator shall comply with the recordkeeping requirements specified in 40 CFR §70.6(a)(3)(ii). The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[45CSR§30-5.1.c.; 40 CFR §64.9(b)]

10.5. Reporting Requirements

10.5.1. If the permittee is required by the Director to demonstrate compliance with sections 10.1.4.f. and 10.1.4.g., 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, R13-2896, Condition 13.2.5.]

10.5.2. Any deviation(s) from the flare design and operation criteria in Section 10.1.6. and permit application R13-2896F, shall be reported in writing to the Director as soon as practicable, but no later than ten (10) calendar days following discovery of such deviation.
[45CSR13, R13-2896, Condition 13.2.6.]

10.5.3. The permittee shall report to the Director, the time, cause of event, estimate of emissions and corrective actions taken when the Ground Flare was used for an emergency at the facility.
[45CSR13, R13-2896, Condition 13.2.7.]

10.5.4. **General reporting requirements.**

a. On and after the date specified in 40 CFR §64.7(a) by which the owner or operator must use monitoring that meets the requirements of 40 CFR Part 64, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 CFR §70.6(a)(3)(iii).

b. A report for monitoring under 40 CFR Part 64 shall include, at a minimum, the information required under 40 CFR §70.6(a)(3)(iii) and the following information, as applicable:

1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

2. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

3. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[45CSR§30-5.1.c.; 40 CFR §64.9(a)]

10.6. Compliance Plan

10.6.1. None

11.0 Ethane Amine Units [emission unit ID(s): S011, S054]

11.1. Limitations and Standards

11.1.1. **Maximum Throughput Limitation.** The maximum sour ethane throughput to each individual Ethane Amine Unit shall not exceed 129 mmscf/day and 47,085 mmscf/year (or, alternatively 81,523 barrels/day and 29,755,895 barrels/year of treated ethane). 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, R13-2896, Condition 14.1.1.]

11.1.2. Each Ethane Amine Unit (S011, S054) shall be designed and operated in accordance with the following:

a. Carbon dioxide will be removed from the ethane product in an amine contacting system;

b. The total ethane product shall be contacted with an amine solution in the Amine Contactor where the carbon dioxide in the ethane product is removed to less than 500 ppmw;

c. The rich amine from the Contactor is regenerated in the Amine Regenerator where heat input is used to drive the carbon dioxide and water overhead. Overheads from S011 are vented to the atmosphere and overheads from S054 are routed as described in Condition 11.1.15.; and

d. The lean amine from the bottom of the Regenerator is recycled back to the Amine Contactor.

[45CSR13, R13-2896, Condition 14.1.2.]

11.1.3. Off gas from both Ethane Amine Units' flash tanks shall be collected and sent to the Ground Flare (S004A) for combustion.
[45CSR13, R13-2896, Condition 14.1.3.]

11.1.4. Maximum methanol and VOC emissions from Ethane Amine Unit S011 shall not exceed 1.82 lb/hr and 7.99 ton/year, and 1.98 lb/hr and 8.67 ton/year, respectively.
[45CSR13, R13-2896, Condition 14.1.4.]

11.1.5. The still vent emissions from S054 shall be, at a minimum of 95% of time the unit is in operation, captured by the vapor recovery unit (VRU) and routed to the residue gas discharge line. During VRU downtime, emissions from S054 still vent shall vent to atmosphere. Maximum methanol and VOC emissions from Ethane Amine Unit S054 shall not exceed 1.82 lb/hr and 0.40 ton/year, and 1.98 lb/hr and 0.43 ton/year, respectively.
[45CSR13, R13-2896, Condition 14.1.5.]

11.2. Monitoring Requirements

11.2.1. In order to show compliance with 11.1.1., the permittee shall either: (1) monitor and record the monthly and twelve-month total throughput of sour ethane fed to both Ethane Amine Units, or (2) monitor and record the monthly and twelve-month total throughput of total treated ethane from both Ethane Amine Units.
[45CSR13, R13-2896, Condition 14.2.1.]

11.2.2. The permittee shall monitor and record the monthly and twelve-month total percentage of time Ethane Amine Unit S054 is operated when the VRU is not in operation.
[45CSR13, R13-2896, Condition 14.2.2.]

11.3. Testing Requirements

11.3.1. The permittee shall conduct, at a minimum of once per twelve-month period, sampling of the inlet gas stream to the Ethane Amine Units. The results of this test shall be used, with appropriate modeling techniques (such as use of ProMax software), to verify that the emissions of the unit are in compliance with those given under 11.1.4. and 11.1.5. above.
[45CSR13, R13-2896, Condition 14.2.3.]

11.4. Recordkeeping Requirements

11.4.1. None

11.5. Reporting Requirements

11.5.1. None

11.6. Compliance Plan

11.6.1. None

12.0 Other Storage Tanks and Liquids Loading/Unloading [emission unit ID(s): TK-906, TK-2906, TK-907, TK-2907, S008, S015, S033, S055, L-1]

12.1. Limitations and Standards

12.1.1. The maximum design capacity of material loading/unloading and maximum associated emissions shall not exceed the following for the specific NGLs:

Emission Unit ID	Material Loaded/Unloaded	Truck (gpm)	Rail (gpm)	Barge (gpm)	VOC Emissions	
					lb/hr	ton/year
S008	Propane	3,600 (vb)	4,000 (vb)	4,000 (vb)	5.99	4.21
	Isobutane			No		
	Butanes			No		
	NGL			No		
	Natural Gasoline	600 (vb)	2,000 (vb)	N/A		
S033	Natural Gasoline	N/A	N/A	4,000	97.22	82.69
S015	Slop Oil/Produced Water	150	No	No	2.32	0.11
L-1	Gasoline Dispenser	20 (gal/hr)	No	No	0.18	0.072
S055	Pressurized NGL/Condensate (Unloading)	3,600	N/A	No	6.64	14.54

[45CSR13, R13-2896, Condition 15.1.1.]

12.1.2. The maximum Slop Oil/Produced Water loaded into trucks (S015) and Gasoline Dispenser Loading (L-1) shall not exceed a maximum of 2,007,070 and 12,000 gallons per year, respectively. The maximum Natural Gasoline loaded into barges (S033) shall not exceed a maximum of 408,240,000 gallons per year.
[45CSR13, R13-2896, Condition 15.1.2.]

12.1.3. The main Liquids Loading area (S008, S033) shall employ vapor balance (closed system) to route all displaced vapors back to the tanks when loading propane, isobutane, butanes, natural gasoline, or NGLs to truck or railcar ***and*** when loading propane to barge. Natural Gasoline barge loading (S033) operations, and Slop Oil/Produced Water (S015), and Gasoline Dispenser (L-1) truck loading operations are not required to use vapor balance.
[45CSR13, R13-2896, Condition 15.1.3.]

12.1.4. All truck loading of Slop Oil and Produced Water shall be done using the submerged-fill method. The "submerged-fill method" shall, for the purposes of this permit, mean either bottom-filling or filling by extending the pipe to near the bottom of the tank, and as soon as is practicable, below the level of liquid.
[45CSR13, R13-2896, Condition 15.1.4.]

12.1.5. The maximum annual throughput and VOC emissions for the specified tanks shall not exceed what is given in the following table:

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-L-1	Gasoline(1)	12,000	0.13
TK-906	Slop Oil	248,712	0.05
TK-907	Produced Water	754,824	0.14
TK-2906	Slop Oil	248,712	0.05
TK-2907	Produced Water	754,824	0.14

(1) This is purchased retail gasoline, not natural gasoline as produced on site.

[45CSR13, R13-2896, Condition 15.1.5.]

12.2. Monitoring Requirements

12.2.1. None

12.3. Testing Requirements

12.3.1. None

12.4. Recordkeeping Requirements

12.4.1. To demonstrate compliance with sections 12.1.2. and 12.1.5., the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas (S008, S033, S055) and in the specified storage tanks.
[45CSR13, R13-2896, Condition 15.2.1.]

12.5. Reporting Requirements

12.5.1. None

12.6. Compliance Plan

12.6.1. None

13.0 Pigging Operations [emission unit ID(s): S034, S035]

13.1. Limitations and Standards

13.1.1. The permittee shall utilize a non-assisted flare, designated as S034, for control of potential emissions during all times of propane pig trap operations. The flare will have a maximum design capacity of 72,000 scf/hr and be designed and operated to achieve a minimum propane DRE of 98%.
[45CSR13, R13-2896, Condition 16.1.1.]

13.1.2. The maximum annual combustion of waste gases in the pig trap flare (S034) shall not exceed 720,000 scf. The maximum number of pigging events per year for all pig traps shall not exceed the limits and volumes per event (scf) established in the permit application R13-2896G.
[45CSR13, R13-2896, Condition 16.1.2.]

13.1.3. Maximum combustion exhaust emissions (not including uncombusted pass-through emissions of waste gases) from S034 shall not exceed the following:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	24.25	0.12
Carbon Monoxide	13.99	0.07
$PM_{2.5}/PM_{10}/PM$	1.31	0.01

[45CSR13, R13-2896, Condition 16.1.3.]

13.1.4. Based on the minimum VOC DRE of 98.0% as required under 13.1.1., maximum emissions of uncombusted VOCs emitted at the Pigging Flare shall not exceed 227.77 lb/hr and 1.14 ton/year of VOCs. The maximum emissions of VOCs and HAPs emitted from all other pigging operations with the exception of the propane pig trap shall not exceed 103.10 lb/hr and 0.84 ton/year, and 1.25 lb/hr and 0.01 ton/year, respectively.
[45CSR13, R13-2896, Condition 16.1.4.]

13.1.5. The Pigging Flare shall be designed and operated in accordance with 40 CFR §60.18.
[45CSR13, R13-2896, Condition 16.1.6.]

13.1.6. The Pigging Flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to those given under condition 10.1.4.
[45CSR13, R13-2896, Condition 16.1.7.]

13.1.7. The pigging vapors from the three (3) truck side 30” Inlet Receivers shall be captured by the VRU and routed back to the process.
[45CSR13, R13-2896, Condition 16.1.5.]

13.2. Monitoring Requirements

13.2.1. In order to show compliance with 13.1.2., the permittee shall calculate, based on the information collected under 13.2.2., the throughput (in scf) of waste gases fed to S034 on a monthly and a rolling twelve-month basis.
[45CSR13, R13-2896, Condition 16.2.1.]

13.2.2. In order to show compliance with 13.1.2., the permittee shall monitor and record the total number and type of pigging events and the estimated volume per event (in scf) on a monthly and rolling twelve-month total for all pig traps.
[45CSR13, R13-2896, Condition 16.2.2.]

13.2.3. The permittee shall meet the following Visible Emissions Requirements for the S034:

a. To demonstrate compliance with the visible emissions requirements of 45CSR6, the permittee shall conduct the following visible emission checks and/or opacity monitoring and recordkeeping for the Pigging Flare:

1. The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. 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 CFR 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR 60, Appendix A, Method 9 certification course. The observation period shall be a minimum of one (1) hour at initial commissioning and at least one (1) hour thereafter each calendar year during a pig trap flaring operation. In the event no pig trap flaring operations occurred during the calendar year, the permittee shall not be required to complete a Method 22 observation for that year;

2. As the Pigging Flare is of smokeless design, any observation of visible emissions will indicate incorrect operation of the flare. Therefore, upon the observation of visible emissions, the permittee shall, at the next available safe opportunity, cease operation of the flare and attempt to correct the problem. After an attempt to correct the problem, the permittee shall then conduct a minimum of one (1) hour of visible emissions observations according to 13.2.3.a.1. during the next pig trap flaring operation; and

3. The permittee shall maintain records of all monitoring data required by 13.2.3. 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).

[45CSR13, R13-2896, Condition 16.2.3.]

13.3. Testing Requirements

13.3.1. None

13.4. Recordkeeping Requirements

13.4.1. None

13.5. Reporting Requirements

13.5.1. None

13.6. Compliance Plan

13.6.1. None

14.0 40 CFR 60, Subparts OOOO, OOOOa, and OOOOb Requirements [emission unit ID(s):FUG AREA 1 through 7 and Compressors]

14.1. Limitations and Standards

FUG AREA 1 through 4

14.1.1. In accordance with the request given in Permit Application R13-2896K, the permittee shall operate FUG AREA 1 through 4 in accordance with all applicable requirements given under 40 CFR 60, Subpart OOOOa, even those areas that are eligible to comply with 40 CFR 60, Subparts KKK and OOOO.
[45CSR13, R13-2896, Condition 17.1.1.]

14.1.2. This condition applies to the group of all equipment, except compressors, within a process unit located at an onshore natural gas processing plant.

a. The permittee must comply with the requirements of 40 CFR §§60.482-1a(a), (b), (d), and (e), 60.482-2a, and 60.482-4a through 60.482-10a, except as provided in 40 CFR §60.5401a.

b. The permittee must comply with the provisions of 40 CFR §60.485a except as provided in 40 CFR §60.5400a(f).

c. The permittee must comply with the provisions of 40 CFR §§60.486a and 60.487a except as provided in 40 CFR §§60.5401a, 60.5421a, and 60.5422a.

d. The permittee must use the following provision instead of 40 CFR §60.485a(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-93, E168-92, or E260-96 (incorporated by reference as specified in 40 CFR §60.17) must be used.

[45CSR16; 40 CFR §§60.5400a(a) and (d) to (f)]

FUG AREA 5 through 7

14.1.3. This section applies to process unit equipment affected facilities located at an onshore natural gas processing plant. The permittee must comply with the requirements of 40 CFR §§60.5400b(a) through (l) to reduce methane and VOC emissions from equipment leaks, except as provided in 40 CFR §60.5402b. As an alternative to the standards in this section, the permittee may comply with the requirements in 40 CFR §60.5401b.

a. **General standards.** The permittee must comply with the requirements in paragraphs b. through d. of this condition for each pump in light liquid service, pressure relief device in gas/vapor service, valve in gas/vapor or light liquid service, and connector in gas/vapor or light liquid service, as applicable. The permittee must comply with the requirements in paragraph e. of this condition for each open-ended valve

or line. The permittee must comply with the requirements in paragraph f. of this condition for each closed vent system and control device used to comply with equipment leak provisions in this condition. The permittee must comply with paragraph g. of this condition for each pump, valve, and connector in heavy liquid service and pressure relief device in light liquid or heavy liquid service. The permittee must make repairs as specified in paragraph h. of this condition. The permittee must demonstrate initial compliance with the standards as specified in paragraph i. of this condition. The permittee must demonstrate continuous compliance with the standards as specified in paragraph j. of this condition. The permittee must perform the reporting as specified in paragraph k. of this condition. The permittee must perform the recordkeeping as required in paragraph l. of this condition.

1. The permittee may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of methane and VOC at least equivalent to that achieved by the controls required in 40 CFR 60, Subpart OOOOb according to the requirements of 40 CFR §60.5399b.

2. Each piece of equipment is presumed to have the potential to emit methane or VOC unless an owner or operator demonstrates that the piece of equipment does not have the potential to emit methane or VOC. For a piece of equipment to be considered not to have the potential to emit methane or VOC, the methane and VOC content of a gaseous stream must be below detection limits using Method 18 of Appendix A-6 to 40 CFR 60. Alternatively, if the piece of equipment is in wet gas service, the permittee may choose to determine the methane and VOC content of the stream is below the detection limit of the methods described in ASTM E168-16(R2023), E169-16(R2022), or E260-96 (all incorporated by reference, see 40 CFR §60.17).

b. **Monitoring surveys.** The permittee must monitor for leaks using OGI in accordance with Appendix K of 40 CFR 60, unless otherwise specified in paragraphs c. or d. of this condition.

1. Monitoring surveys must be conducted bimonthly.

2. Any emissions observed using OGI are defined as a leak.

c. **Additional requirements for pumps in light liquid service.** In addition to the requirements in paragraph b., the permittee must conduct weekly visual inspections of all pumps in light liquid service for indications of liquids dripping from the pump seal, except as specified in paragraphs c.3. and 4. of this condition. If there are indications of liquids dripping from the pump seal, the permittee must follow the procedure specified in either paragraph c.1. or 2. of this condition.

1. Monitor the pump within 5 calendar days using OGI in accordance with Appendix K or the methods specified in 40 CFR §60.5403b. A leak is detected if any emissions are observed using OGI or if an instrument reading of 2,000 ppmv or greater is provided using Method 21 of Appendix A-7 to 40 CFR 60.

2. Designate the visual indications of liquids dripping as a leak and repair the leak as specified in paragraph h. of this condition.

3. If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process, fuel gas system, or a control device that complies with the requirements of paragraph f. of this condition, it is exempt from the weekly inspection requirements in paragraph c. of this condition.

4. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirements in paragraph c. of this condition, provided that each pump is visually inspected as often as practicable and at least bimonthly.

d. **Additional requirements for pressure relief devices in gas/vapor service.** In addition to the requirements in paragraph b. of this condition, the permittee must monitor each pressure relief device as specified in paragraph d.1. of this condition, except as specified in paragraph d.2. of this condition.

1. The permittee must monitor each pressure relief device within 5 calendar days after each pressure release to detect leaks using the methods specified in 40 CFR §60.5403b. A leak is detected if any emissions are observed using OGI or if an instrument reading of 500 ppmv or greater is provided using Method 21 of Appendix A-7 to 40 CFR 60.

2. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in paragraph f. of this condition is exempt from the requirements of paragraph d.1. of this condition.

e. **Open-ended valves or lines.** Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve, except as provided in paragraphs e.4. and 5. of this condition. The cap, blind flange, plug, or second valve must seal the open end of the valve or line at all times except during operations requiring process fluid flow through the open-ended valve or line.

1. If evidence of a leak is found at any time by audible, visual, and olfactory (AVO), or any other detection method, a leak is detected.

2. Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

3. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall remain closed at all other times.

4. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR §60.5400b.

5. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block-and-bleed system as specified in paragraphs e. introductory text, e.2., and e.3. are exempt from the requirements of this section.

f. **Closed vent systems and control devices.** Closed vent systems used to comply with the equipment leak provisions of this condition must comply with the requirements in 40 CFR §§60.5411b and 60.5416b. Control devices used to comply with the equipment leak provisions of this condition must comply with the requirements in 40 CFR §§60.5412b, 60.5415b(f), and 60.5417b.

g. **Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.** If evidence of a potential leak is found at any time by AVO, or any other detection method, a leak is detected and must be repaired in accordance with paragraph h. of this condition.

h. **Repair requirements.** When a leak is detected, the permittee must comply with the requirements of paragraphs h.1. through 5. of this condition, except as provided in paragraph h.6. of this condition.

1. A weatherproof and readily visible identification tag, marked with the equipment identification number, must be attached to the leaking equipment. The identification tag on equipment may be removed after it has been repaired.

2. A first attempt at repair must be made as soon as practicable, but no later than 5 calendar days after the leak is detected. A first attempt at repair is not required if the leak is detected using OGI and the equipment identified as leaking would require elevating the repair personnel more than 2 meters above a support surface.

i. First attempts at repair for pumps in light liquid or heavy liquid service include, but are not limited to, the practices described in paragraphs h.2.i.a. and b. of this condition, where practicable.

a. Tightening the packing gland nuts.

b. Ensuring that the seal flush is operating at design pressure and temperature.

ii. For each valve where a leak is detected, the permittee must comply with paragraphs h.2.ii.a., b. or c., and d. of this condition.

a. Repack the existing valve with a low-e packing.

b. Replace the existing valve with a low-e valve; or

c. Perform a drill and tap repair with a low-e injectable packing.

d. An owner or operator is not required to utilize a low-e valve or low-e packing to replace or repack a valve if the owner or operator demonstrates that a low-e valve or low-e packing is not technically feasible. Low-e valve or low-e packing that is not suitable for its intended use is considered to be technically infeasible. Factors that may be considered in determining technical infeasibility include: retrofit requirements for installation (e.g., re-piping or space limitation), commercial unavailability for valve type, or certain instrumentation assemblies.

3. Repair of leaking equipment must be completed within 15 calendar days after detection of each leak, except as provided in paragraphs h.4., 5., and 6 of this condition.

4. If the repair for visual indications of liquids dripping for pumps in light liquid service can be made by eliminating visual indications of liquids dripping, the permittee must make the repair within 5 calendar days of detection.

5. If the repair for AVO or other indication of a leak for open-ended valves or lines; pumps, valves, or connectors in heavy liquid service; or pressure relief devices in light liquid or heavy liquid service can be made by eliminating the AVO, or other indication of a potential leak, the permittee must make the repair within 5 calendar days of detection.

6. Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days is technically infeasible without a process unit shutdown or as specified in paragraphs h.6.i. through v. of this condition. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

   i. Delay of repair of equipment is allowed for equipment which is isolated from the process, and which does not have the potential to emit methane or VOC.

   ii. Delay of repair for valves and connectors is allowed if the conditions in paragraphs h.6.ii.a. and b. of this section are met.

      a. The permittee must demonstrate that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

      b. When repair procedures are conducted, the purged material is collected and destroyed or recovered in a control device complying with paragraph f. of this condition.

   iii. Delay of repair for pumps is allowed if the conditions in paragraphs h.6.iii.a. and b. of this condition are met.

      a. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

      b. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

   iv. If delay of repair is required to repack or replace the valve, the permittee may use delay of repair. Delay of repair beyond a process unit shutdown is allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

   v. When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive bimonthly monitoring results show no leak remains.

i. **Initial compliance.** The permittee must demonstrate initial compliance with the standards that apply to equipment leaks at onshore natural gas processing plants as required by 40 CFR §60.5410b(h).

j. **Continuous compliance.** The permittee must demonstrate continuous compliance with the standards that apply to equipment leaks at onshore natural gas processing plants as required by 40 CFR §60.5415b(j).

k. **Reporting.** The permittee must perform the reporting requirements as specified in 40 CFR §§60.5420b(b)(1) and (11) through (13), as applicable, and 40 CFR §60.5422b.

l. **Recordkeeping.** The permittee must perform the recordkeeping requirements as specified in 40 CFR §§60.5420b(c)(8) and (10) through (13), as applicable, and 40 CFR §60.5421b.

[45CSR16; 40 CFR §§60.5400b(a) to (c), (d), (d)(1), (d)(3), and (e) to (l)]

14.1.4. This condition provides alternative standards for process unit equipment affected facilities located at an onshore natural gas processing plant. The permittee may choose to comply with the standards in this condition instead of the requirements in 40 CFR §60.5400b. For purposes of the alternative standards provided in this condition, the permittee must comply with the requirements of paragraphs a. through m. of this condition to reduce methane and VOC emissions from equipment leaks, except as provided in 40 CFR §60.5402b.

a. **General standards.** The permittee must comply with the requirements in paragraph b. of this condition for each pump in light liquid service. The permittee must comply with the requirements of paragraph c. of this condition for each pressure relief device in gas/vapor service. The permittee must comply with the requirements in paragraph d. of this condition for each open-ended valve or line. The permittee must comply with the requirements in paragraph e. of this condition for each closed vent system and control device used to comply with the equipment leak provisions in this condition. The permittee must comply with paragraph f. of this condition for each valve in gas/vapor or light liquid service. The permittee must comply with paragraph g. of this condition for each pump, valve, and connector in heavy liquid service and pressure relief device in light liquid or heavy liquid service. The permittee must comply with paragraph h. of this condition for each connector in gas/vapor and light liquid service. The permittee must make repairs as specified in paragraph i. of this condition. The permittee must demonstrate initial compliance with the standards as specified in paragraph j. of this condition. The permittee must demonstrate continuous compliance with the standards as specified in paragraph k. of this condition. The permittee must perform the reporting requirements as specified in paragraph l. of this condition. The permittee must perform the recordkeeping requirements as required in paragraph m. of this condition.

1. The permittee may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of methane and VOC at least equivalent to that achieved by the controls required in 40 CFR 60, Subpart OOOOb according to the requirements of 40 CFR §60.5399b.

2. Each piece of equipment is presumed to have the potential to emit methane or VOC unless an owner or operator demonstrates that the piece of equipment does not have the potential to emit methane or VOC. For a piece of equipment to be considered not to have the potential to emit methane or VOC, the methane and VOC content of a gaseous stream must be below detection limits using Method 18 of Appendix A-6 to 40 CFR 60. Alternatively, if the piece of equipment is in wet gas service, the permittee may choose to determine the methane and VOC content of the stream is below the detection limit of the methods described in ASTM E168-16(R2023), E169-16(R2022), or E260-96 (all incorporated by reference, see 40 CFR §60.17).

b. **Pumps in light liquid service.** The permittee must monitor each pump in light liquid service monthly to detect leaks by the methods specified in 40 CFR §60.5403b, except as provided in paragraphs b.2. through 6. of this section. A leak is defined as an instrument reading of 2,000 ppmv or greater. A pump

that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in paragraphs b.2. through 6. of this condition.

1. In addition to the requirements in paragraph b. of this condition, the permittee must conduct weekly visual inspections of all pumps in light liquid service for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, the permittee must follow the procedure specified in either paragraph b.1.i. or ii. of this condition.

    i. Monitor the pump within 5 days using the methods specified in 40 CFR §60.5403b. A leak is defined as an instrument reading of 2,000 ppmv or greater.

    ii. Designate the visual indications of liquids dripping as a leak, and repair the leak as specified in paragraph i. of this condition.

2. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements in paragraph b. of this condition, provided the requirements specified in paragraphs b.2.i. through v. are met.

    i. Each dual mechanical seal system meets the requirements of paragraph b.2.i.a., b., or c. of this condition.

        a. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

        b. Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of paragraph e. of this condition; or

        c. Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

    ii. The barrier fluid system is in heavy liquid service or does not have the potential to emit methane or VOC.

    iii. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

    iv. Each pump is checked according to the requirements in paragraph b.1. of this condition.

    v. Each sensor meets the requirements in paragraphs b.2.v.a. through c. of this condition.

        a. Each sensor as described in paragraph b.2.iii. of this condition is checked daily or is equipped with an audible alarm.

        b. The permittee determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

c. If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph b.2.v.b. of this condition, a leak is detected.

3. Any pump that is designated, as described in 40 CFR §60.5421b(b)(12), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of paragraphs b. introductory text, b.1., and b.2. of this condition if the pump:

i. Has no externally actuated shaft penetrating the pump housing;

ii. Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background as measured by the methods specified in 40 CFR §60.5403b; and

iii. Is tested for compliance with paragraph b.3.ii. of this condition initially upon designation, annually, and at other times requested by the Administrator.

4. If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process, fuel gas system, or a control device that complies with the requirements of paragraph e. of this condition, it is exempt from paragraphs b., b.1. through 3. of this condition, and the repair requirements of paragraph i. of this condition.

5. Any pump that is designated, as described in 40 CFR §60.5421b(b)(13), as an unsafe-to-monitor pump is exempt from the inspection and monitoring requirements of paragraphs b. introductory text, b.1., and b.2.iv. and v. of this section if the conditions in paragraphs b.5.i. and ii. of this section are met.

i. The permittee demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph b. of this section; and

ii. The permittee has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and the permittee repairs the equipment according to the procedures in paragraph i. of this condition if a leak is detected.

6. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirements in paragraphs b.1. and b.2.iv. of this condition, and the daily requirements of paragraph b.2.v. of this condition, provided that each pump is visually inspected as often as practicable and at least monthly.

c. **Pressure relief devices in gas/vapor service.** The permittee must monitor each pressure relief device quarterly using the methods specified in 40 CFR §60.5403b. A leak is defined as an instrument reading of 500 ppmv or greater above background.

1. In addition to the requirements in paragraph c. introductory text of this condition, after each pressure release, the permittee must monitor each pressure relief device within 5 calendar days after each pressure release to detect leaks. A leak is detected if an instrument reading of 500 ppmv or greater is provided using the methods specified in 40 CFR §60.5403b(b).

2. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in paragraph e. of this condition is exempt from the requirements of paragraph c. introductory text and c.1. of this condition.

3. Pressure relief devices equipped with a rupture disk are exempt from the requirements of paragraph c.1. of this condition provided the permittee installs a new rupture disk upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in paragraph i.6. of this condition.

d. **Open-ended valves or lines.** Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve, except as provided in paragraphs d.4. and 5. of this condition. The cap, blind flange, plug, or second valve must seal the open end of the valve or line at all times except during operations requiring process fluid flow through the open-ended valve or line.

1. If evidence of a leak is found at any time by AVO, or any other detection method, a leak is detected and must be repaired in accordance with paragraph i. of this condition. A leak is defined as an instrument reading of 500 ppmv or greater if Method 21 of Appendix A-7 to 40 CFR 60 is used.

2. Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

3. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall remain closed at all other times.

4. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs d. introductory text, and d.1. through 3. of this condition.

5. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block-and-bleed system as specified in paragraphs d. introductory text, d.2., and 3. of this condition are exempt from the requirements of this section.

e. **Closed vent systems and control devices.** Closed vent systems used to comply with the equipment leak provisions of this section must comply with the requirements in 40 CFR §§60.5411b and 60.5416b. Control devices used to comply with the equipment leak provisions of this section must comply with the requirements in 40 CFR §§60.5412b, 60.5415b(f), and 60.5417b.

f. **Valves in gas/vapor and light liquid service.** The permittee must monitor each valve in gas/vapor and in light liquid service quarterly to detect leaks by the methods specified in 40 CFR §60.5403b, except as provided in paragraphs f.3. through 5. of this condition.

1. A valve that begins operation in gas/vapor service or in light liquid service after the initial startup date for the process unit must be monitored for the first time within 90 days after the end of its startup period to ensure proper installation, except for a valve that replaces a leaking valve and except as provided in paragraphs f.3. through 5. of this condition.

2. An instrument reading of 500 ppmv or greater is a leak. The permittee must repair each leaking valve according to the requirements in paragraph i. of this condition.

3. Any valve that is designated, as described in 40 CFR §60.5421b(b)(12), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the monitoring requirements of paragraph f. of this condition if the valve:

   i. Has no externally actuating mechanism in contact with the process fluid;

   ii. Is operated with emissions less than 500 ppmv above background as determined by the methods specified in 40 CFR §60.5403b; and

   iii. Is tested for compliance with paragraph f.3.ii. of this condition initially upon designation, annually, and at other times requested by the Administrator.

4. Any valve that is designated, as described in 40 CFR §60.5421b(b)(13), as an unsafe-to-monitor valve is exempt from the monitoring requirements of paragraph f. of this condition if the requirements in paragraphs f.4.i. and ii. of this condition are met.

   i. The permittee demonstrates that the valve is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph f. of this condition; and

   ii. The permittee has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and the permittee repairs the equipment according to the procedures in paragraph i. of this condition if a leak is detected.

5. Any valve that is designated, as described in 40 CFR §60.5421b(b)(14), as a difficult-to-monitor valve is exempt from the monitoring requirements of paragraph f. of this condition if the requirements in paragraph f.5.i. through iii. of this condition are met.

   i. The permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

   ii. The process unit within which the valve is located has less than 3.0 percent of its total number of valves designated as difficult-to-monitor.

   iii. The permittee has a written plan that requires monitoring of the at least once per calendar year.

g. **Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.** If evidence of a potential leak is found at any time by AVO, or any other detection method, the permittee must comply with either paragraph g.1. or 2. of this condition.

   1. The permittee must monitor the equipment within 5 calendar days by the method specified in 40 CFR §60.5403b and repair any leaks detected according to paragraph i. of this condition. An instrument reading of 10,000 ppmv or greater is defined as a leak.

2. The permittee must designate the AVO, or other indication of a leak as a leak and repair the leak according to paragraph i. of this condition.

h. **Connectors in gas/vapor service and in light liquid service.** The permittee must initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the permittee is required to monitor only those connectors involved in the process change.

1. The permittee must monitor all connectors in gas/vapor service and all connectors in light liquid service annually, except as provided in 40 CFR §60.5399b, paragraph e. of this condition or paragraph h.2. of this condition. If an instrument reading greater than or equal to 500 ppmv is measured, a leak is detected.

2. Any connector that is designated, as described in 40 CFR §60.5421b(b)(13), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs h. introductory text and h.1. of this condition if the requirements of paragraphs h.2.i. and ii. of this condition are met.

i. The permittee demonstrates the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs h. introductory text and h.1. of this condition; and

ii. The permittee has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and the permittee repairs the equipment according to the procedures in paragraph i. of this condition if a leak is detected.

3. Inaccessible, ceramic, or ceramic-line connectors.

i. Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs h. and h.1. of this condition, from the leak repair requirements of paragraph i. of this condition, and from the recordkeeping and reporting requirements of 40 CFR §§60.5421b and 60.5422b. An inaccessible connector is one that meets any of the specifications in paragraphs h.3.i.a. through f. of this condition, as applicable.

a. Buried.

b. Insulated in a manner that prevents access to the connector by a monitor probe.

c. Obstructed by equipment or piping that prevents access to the connector by a monitor probe.

d. Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

e. Inaccessible because it would require elevating monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold.

f. Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines or would risk damage to equipment.

ii. If any inaccessible, ceramic, or ceramic-lined connector is observed by AVO or other means to be leaking, the indications of a leak to the atmosphere by AVO or other means must be eliminated as soon as practicable.

4. Connectors which are part of an instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of paragraph h.3. of this condition, are not subject to the recordkeeping requirements of 40 CFR §60.5421b(b)(1).

i. **Repair requirements.** When a leak is detected, comply with the requirements of paragraphs i.1. through 5. of this condition, except as provided in paragraph i.6. of this condition.

1. A weatherproof and readily visible identification tag, marked with the equipment identification number, must be attached to the leaking equipment. The identification tag on the equipment may be removed after it has been repaired.

2. A first attempt at repair must be made as soon as practicable, but no later than 5 calendar days after the leak is detected.

i. First attempts at repair for pumps in light liquid or heavy liquid service include, but are not limited to, the practices described in paragraphs i.2.i.a. and b. of this condition, where practicable.

a. Tightening the packing gland nuts.

b. Ensuring that the seal flush is operating at design pressure and temperature.

ii. For each valve where a leak is detected, the permittee must comply with paragraph i.2.ii.a., b., or c. of this condition, unless the permittee meets the requirements of paragraph i.2.ii.d. of this condition.

a. Repack the existing valve with a low-e packing.

b. Replace the existing valve with a low-e valve; or

c. Perform a drill and tap repair with a low-e injectable packing.

d. An owner or operator is not required to utilize a low-e valve or low-e packing to replace or repack a valve if the owner or operator demonstrates that a low-e valve or low-e packing is not technically feasible. Low-e valve or low-e packing that is not suitable for its intended use is considered to be technically infeasible. Factors that may be considered in

determining technical infeasibility include: retrofit requirements for installation (e.g., re-piping or space limitation), commercial unavailability for valve type, or certain instrumentation assemblies.

3. Repair of leaking equipment must be completed within 15 calendar days after detection of each leak, except as provided in paragraph i.4., 5., or 6. of this condition.

4. If the repair for visual indications of liquids dripping for pumps in light liquid service can be made by eliminating visual indications of liquids dripping, the permittee must make the repair within 5 calendar days of detection.

5. If the repair for AVO or other indication of a leak for open-ended lines or valves; pumps, valves, or connectors in heavy liquid service; or pressure relief devices in light liquid or heavy liquid service can be made by eliminating the AVO, or other indication of a potential leak, the permittee must make the repair within 5 calendar days of detection.

6. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 calendar days is technically infeasible without a process unit shutdown or as specified in paragraphs i.6.i. through v. of this condition. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 calendar days after startup of the process unit.

   i. Delay of repair of equipment will be allowed for equipment which is isolated from the process, and which does not have the potential to emit methane or VOC.

   ii. Delay of repair for valves and connectors will be allowed if the conditions in paragraphs i.6.ii.a. and b. are met.

      a. The permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

      b. When repair procedures are conducted, the purged material is collected and destroyed or recovered in a control device complying with paragraph e. of this condition.

   iii. Delay of repair for pumps will be allowed if the conditions in paragraphs i.6.iii.a. and b. are met.

      a. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

      b. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

   iv. If delay of repair is required to repack or replace the valve, the permittee may use delay of repair. Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be

allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

v. When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring results show no leak remains.

j. **Initial compliance.** The permittee must demonstrate initial compliance with the standards that apply to equipment leaks at onshore natural gas processing plants as required by 40 CFR §60.5410b(h).

k. **Continuous compliance.** The permittee must demonstrate continuous compliance with the standards that apply to equipment leaks at onshore natural gas processing plants as required by 40 CFR §60.5415b(j).

l. **Reporting.** The permittee must perform the reporting requirements as specified in 40 CFR §§60.5420b(b)(1) and (11) through (13), as applicable, and 40 CFR §60.5422b.

m. **Recordkeeping.** The permittee must perform the recordkeeping requirements as specified in 40 CFR §§60.5420b(c)(8) and (10) through (13), as applicable, and 40 CFR §60.5421b.

[45CSR16; 40 CFR §§60.5401b(a) to (c), (c)(1), (c)(4), (c)(5), and (d) to (m)]

Compressors

14.1.5. The permittee shall maintain on-site and available upon request an updated list of all reciprocating compressors and the applicability of each to 40 CFR 60 Subparts OOOO, OOOOa, and OOOOb. For each compressor, the permittee shall comply with all applicable requirements given under 40 CFR 60 Subpart OOOO, OOOOa, or OOOOb, whichever is applicable dependent on the applicability determined under this requirement.
[45CSR13, R13-2896, Condition 17.1.2.; 45CSR§30-5.1.c.]

14.1.6. **Subpart OOOO Standards.** The permittee must comply with the standards in paragraphs a. through d. of this condition for each reciprocating compressor affected facility.

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 October 15, 2012, 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 CFR §60.5411(a).

b. The permittee must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5410.

c. The permittee must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5415.

d. The permittee must perform the required notification, recordkeeping, and reporting as required by 40 CFR §60.5420.

[45CSR16; 40 CFR §60.5385]

14.1.7. **Closed vent system requirements for reciprocating compressors under Subpart OOOO.**

a. Closed vent system requirements for reciprocating compressors complying with Condition 14.1.6.a.3.

1. The permittee must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the reciprocating compressor rod packing emissions collection system or the wet seal fluid degassing system to a control device or to a process that meets the requirements specified in 40 CFR §§60.5412(a) through (c).

2. The permittee must design and operate the closed vent system with no detectable emissions as demonstrated by 40 CFR §60.5416(b).

3. The permittee must meet the requirements specified in paragraphs a.3.i. and ii. of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device.

i. Except as provided in paragraph a.3.ii. of this section, the permittee must comply with either paragraph a.3.i.a. or b. of this section for each bypass device.

a. The permittee must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that is capable of taking periodic readings as specified in 40 CFR §60.5416(a)(4) and either sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere. The permittee must maintain records of each time the alarm is activated according to 40 CFR §60.5420(c)(8).

b. The permittee must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.

ii. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph a.3.i. of this section.

[45CSR16; 40 CFR §§60.5411 and 60.5411(a)]

14.1.8. **Subpart OOOOa Standards.** 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 each reciprocating compressor affected facility.

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 CFR §§60.5411a(a) and (d).

b. The permittee must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5410a(c).

c. The permittee must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5415a(c).

d. The permittee must perform the reporting as required by 40 CFR §§60.5420a(b)(1) and (4) and the recordkeeping as required by 40 CFR §§60.5420a(c)(3), (6) through (8), and (17), as applicable.

[45CSR16; 40 CFR §60.5385a]

14.1.9. **Closed vent system requirements for reciprocating compressors under Subpart OOOOa.** The permittee must meet the applicable requirements of this section for each cover and closed vent system used to comply with the emission standards for the reciprocating compressors complying with Condition 14.1.8.a.3.

a. Closed vent system requirements for reciprocating compressors.

1. The permittee must design the closed vent system to route all gases, vapors, and fumes emitted from the reciprocating compressor rod packing emissions collection system to a process.

2. The permittee must design and operate the closed vent system with no detectable emissions as demonstrated by 40 CFR §60.5416a(b).

3. The permittee must meet the requirements specified in paragraphs a.3.i. and ii. of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device.

i. Except as provided in paragraph a.3.ii. of this section, the permittee must comply with either paragraph a.3.i.a. or b. of this section for each bypass device.

a. The permittee must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that is capable of taking periodic readings as specified in 40 CFR §60.5416a(a)(4)(i) and sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere. The permittee must maintain records of each time the alarm is activated according to 40 CFR §60.5420a(c)(8).

b. The permittee must secure the bypass device valve installed at the inlet to the bypass device in a non-diverting position using a car-seal or a lock-and-key type configuration.

ii. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph a.3.i. of this section.

b. Closed vent systems requirements for reciprocating compressors using a control device or routing emissions to a process.

1. The permittee must conduct an assessment that the closed vent system is of sufficient design and capacity to ensure that all emissions from the affected facility are routed to the control device and that the control device is of sufficient design and capacity to accommodate all emissions from the affected facility, and have it certified by a qualified professional engineer or an in-house engineer with expertise on the design and operation of the closed vent system in accordance with paragraphs (d)(1)(i) and (ii) of 40 CFR §60.5411a.

i. The permittee must provide the following certification signed and dated by a qualified professional engineer or an in-house engineer: "I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete."

ii. The assessment shall be prepared under the direction or supervision of a qualified professional engineer or an in-house engineer who signs the certification in paragraph d.1.i. of 40 CFR §60.5411a.

[45CSR16; 40 CFR §§60.5411a, 60.5411a(a), and 60.5411a(d)]

14.1.10. **Subpart OOOOb Standards.** Each reciprocating compressor affected facility must comply with the GHG and VOC standards, using volumetric flow rate as a surrogate, in paragraphs a. through c. of this condition, or the GHG and VOC standards in paragraph d. of this condition. The permittee must also comply with the requirements in paragraphs e. through g. of this condition.

a. The volumetric flow rate of each cylinder, measured in accordance paragraph b. or c. of this condition, must not exceed 2 scfm per individual cylinder. If the individual cylinders are manifolded to a single open-ended vent line, the volumetric flow rate must not exceed the sum of the individual cylinders multiplied by 2 scfm. The permittee must conduct measurements of the volumetric flow rate in accordance with the schedule specified in paragraphs a.1. and 2. of this condition and determine the

volumetric flow rate per cylinder in accordance with paragraph b. or c. of this condition. If the volumetric flow rate, measured in accordance with paragraph b. or c. of this condition, for a cylinder exceeds 2 scfm per cylinder (or a combined volumetric flow rate greater than the number of compression cylinders multiplied by 2 scfm), the rod packing or packings must be repaired or replaced as provided in paragraph a.3. of this condition.

1. The permittee must conduct the first volumetric flow rate measurements from the reciprocating compressor rod packing vent on or before 8,760 hours of operation after the last rod packing replacement, or on or before 8,760 hours of operation after startup, whichever date is later.

2. The permittee must conduct subsequent volumetric flow rate measurements from the reciprocating compressor rod packing vent on or before 8,760 hours of operation after the previous measurement which demonstrates compliance with the applicable volumetric flow rate of 2 scfm per cylinder (or a combined volumetric flow rate greater than the number of compression cylinders multiplied by 2 scfm), or on or before 8,760 hours of operation after last rod packing replacement, whichever date is later.

3. The rod packing must be repaired or replaced within 90 calendar days after the date of the volumetric emissions measurement that exceeded 2 scfm per cylinder. The permittee must conduct follow-up volumetric flow rate measurements from compressor vents using the methods specified in paragraphs b. or c. of this condition within 15 days after the repair (or rod packing replacement) to document that the rate has been reduced to less than 2 scfm per cylinder. Delay of repair will be allowed if the conditions in paragraphs a.3.i. or ii. of this condition are met.

    i. If the repair (or rod packing replacement) 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 (or rod packing replacement) must be completed during the next scheduled compressor station shutdown for maintenance, after a scheduled vent blowdown, or within 2 years of the date of the volumetric emissions measurement that exceeds the applicable required flow rate per cylinder, whichever is earliest. 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 the rod packing or a part, but the replacement cannot be acquired and installed within the repair timelines specified under this section due to the condition specified in paragraph a.3.ii.a. of this section, the repair must be completed in accordance with paragraph a.3.ii.b. of this section and documented in accordance with 40 CFR §§60.5420b(c)(5)(viii) through (x).

        a. Rod packing or part supplies had been sufficiently stocked but are depleted at the time of the required repair.

        b. The required rod packing or part replacement must be ordered no later than 10 calendar days after the reciprocating compressor is added to the delay of repair list due to parts unavailability. The repair must be completed as soon as practicable, but no later than 30 calendar days after receipt of the replacement rod packing or part, 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 a.3.i. of this condition.

b. The permittee must determine the volumetric flow rate per cylinder from the reciprocating compressor as specified in paragraph b.1. or 2. of this condition.

1. For reciprocating compressor rod packing equipped with an open-ended vent line on compressors in operating or standby pressurized mode, determine the volumetric flow rate of the rod packing using one of the methods specified in paragraphs b.1.i. through iii. of this condition.

i. Determine the volumetric flow rate at standard conditions from the open-ended vent line using a high-volume sampler according to methods set forth in 40 CFR §60.5386b(c).

ii. Determine the volumetric flow rate at standard conditions from the open-ended vent line using a temporary or permanent meter, according to methods set forth in 40 CFR §60.5386b(b).

iii. Any of the methods set forth in 40 CFR §60.5386b(a) to screen for leaks and emissions. For the purposes of this paragraph, emissions are detected whenever a leak is detected according to any of the methods in 40 CFR §60.5386b(a). If emissions are detected using the methods set forth in 40 CFR §60.5386b(a), then the permittee must use one of the methods specified in paragraphs b.1.i. and ii. of this condition to determine the volumetric flow rate per cylinder. If emissions are not detected using the methods in 40 CFR §60.5386b(a), then the permittee may assume that the volumetric flow rate is zero.

2. For reciprocating compressor rod packing not equipped with an open-ended vent line on compressors in operating or standby pressurized mode, the permittee must determine the volumetric flow rate of the rod packing using the methods specified in paragraphs b.2.i. and ii. of this condition.

i. The permittee must use the methods described in 40 CFR §60.5386b(a) to conduct leak detection of emissions from the rod packing case into an open distance piece, or, for compressors with a closed distance piece, the permittee must conduct annual leak detection of emissions from the rod packing vent, distance piece vent, compressor crank case breather cap, or other vent emitting gas from the rod packing.

ii. The permittee must measure emissions found in paragraph b.2.i. of this condition using a meter or high-volume sampler according to methods set forth in 40 CFR §60.5386b(b) or (c).

c. For conducting measurements on manifolded groups of reciprocating compressor affected facilities, the permittee must determine the volumetric flow rate from reciprocating compressor rod packing vent as specified in paragraphs c.1. and 2. of this condition.

1. Measure at a single point in the manifold downstream of all compressor vent inputs and, if practical, prior to comingling with other non-compressor emission sources.

2. Determine the volumetric flow rate per cylinder at standard conditions from the common stack using one of the methods specified in paragraphs c.2.i. through iv. of this condition.

i. A temporary or permanent flow meter according to the methods set forth in 40 CFR §60.5386b(b).

ii. A high-volume sampler according to the methods set forth in 40 CFR §60.5386b(c).

iii. An alternative method, as set forth in 40 CFR §60.5386b(d).

iv. Any of the methods set forth in 40 CFR §60.5386b(a) to screen for emissions. For the purposes of this paragraph, emissions are detected whenever a leak is detected when using any of the methods in 40 CFR §60.5386b(a). If emissions are detected using the methods set forth in 40 CFR §60.5386b(a), then the permittee must use one of the methods specified in paragraphs c.2.i. through iii. of this condition to determine the volumetric flow rate per cylinder. If emissions are not detected using the methods in 40 CFR §60.5386b(a), then the permittee may assume that the volumetric flow rate is zero.

d. As an alternative to complying with the GHG and VOC standards in paragraphs a. through c. of this condition, owners and operators can meet the requirements specified in paragraph d.1., 2., or 3. of this condition.

1. Collect the methane and VOC emissions from the reciprocating compressor rod packing using a rod packing emissions collection system that is operated to route the rod packing emissions to a process. In order to comply with this option, the permittee must equip the reciprocating compressor with a cover that meets the requirements of 40 CFR §60.5411b(b). The cover must be connected through a closed vent system that meets the requirements of 40 CFR §§60.5411b(a) and (c).

2. Reduce methane and VOC emissions from each rod packing emissions collection system by using a control device that reduces methane and VOC emissions by 95.0 percent. In order to comply with this option, the permittee must equip the reciprocating compressor with a cover that meets the requirements of 40 CFR §60.5411b(b). The cover must be connected through a closed vent system that meets the requirements of 40 CFR §§60.5411b(a) and (c) and the closed vent system must be routed to a control device that meets the conditions specified in 40 CFR §60.5412b.

3. As an alternative to conducting the required volumetric flow rate measurements under paragraph a. of this condition, an owner or operator can choose to comply by replacing the rod packing on or before 8,760 hours of operation after startup, on or before 8,760 hours of operation after the previous flow rate measurement, or on or before 8,760 hours of operation after the date of the most recent compressor rod packing replacement, whichever date is later.

e. The permittee must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5410b(e).

f. The permittee must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5415b(g).

g. The permittee must perform the reporting requirements as specified in 40 CFR §§60.5420b(b)(1), (6), and (11) through (13), as applicable; and the recordkeeping requirements as specified in 40 CFR §§60.5420b(c)(5) and (8) through (13), as applicable.

[45CSR16; 40 CFR §60.5385b]

14.1.11. **Closed vent system requirements for reciprocating compressors and process unit equipment under Subpart OOOOb.** For each cover or closed vent system at the reciprocating compressor and process unit equipment affected facilities, the permittee must comply with the applicable requirements of paragraphs a. through c. of this condition.

a. *Closed vent system requirements.*

1. **Reciprocating compressor rod packing.** The permittee must design the closed vent system to capture and route all gases, vapors, and fumes to a process.

2. **Process Unit Equipment.** The permittee must design the closed vent system to capture and route all gases, vapors, and fumes to a process or a control device that meets the requirements specified in 40 CFR §§60.5412b(a) through (d).

3. The permittee must design and operate the closed vent system with no identifiable emissions as demonstrated by 40 CFR §§60.5416b(a) and (b).

4. **Bypass devices.** The permittee must meet the requirements specified in paragraphs a.4.i. and ii. of this condition if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or being routed to a process.

i. Except as provided in paragraph a.4.ii. of this condition, the permittee must comply with either paragraph a.4.i.a. or b. of this condition for each bypass device.

a. The permittee must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device. The flow indicator must be capable of taking periodic readings as specified in 40 CFR §60.5416b(a)(4)(i) and sound an alarm, or initiate notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process, and sent to the atmosphere. The permittee must maintain records of each time the alarm is activated according to 40 CFR §60.5420b(c)(10).

b. The permittee must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.

ii. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of 40 CFR §60.5411b(a)(4)(i).

b. *Cover requirements for reciprocating compressors.*

1. The cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief devices and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the reciprocating compressor rod packing emissions collection system.

2. 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:

i. 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);

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

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

iv. To vent liquids, gases, or fumes from the unit through a closed vent system designed and operated in accordance with the requirements of paragraph a. of this condition to a control device or to a process.

3. The permittee must design and operate the cover with no identifiable emissions as demonstrated by 40 CFR §§60.5416b(a) and (b), except when operated as provided in paragraphs b.2.i. through iv. of this condition.

c. *Design requirements.*

1. The permittee must conduct an assessment that the closed vent system is of sufficient design and capacity to ensure that all gases, vapors, and fumes from the affected facility are routed to the control device or process and that the control device or process is of sufficient design and capacity to accommodate all emissions from the affected facility. The assessment must be certified by a qualified professional engineer or an in-house engineer with expertise on the design and operation of the closed vent system in accordance with paragraphs c.1.i. and ii. of this condition.

i. The permittee must provide the following certification, signed and dated by a qualified professional engineer or an in-house engineer: "I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted, and this report was prepared pursuant to the requirements of 40 CFR 60, Subpart OOOOb. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete."

ii. The assessment shall be prepared under the direction or supervision of a qualified professional engineer or an in-house engineer who signs the certification in paragraph c.1.i. of this condition.

[45CSR16; 40 CFR §§60.5411b(a), (b)(1), (b)(2), (b)(4), and (c)]

14.1.12. The permittee is deemed to be in compliance with 40 CFR 60 Subpart OOOO if they are in compliance with all applicable provisions of 40 CFR 60, Subpart OOOOa.
[45CSR16; 40 CFR §60.5370(d)]

14.1.13. 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 CFR §60.8(c) do not apply to 40 CFR Subpart OOOOa or Subpart OOOOb.
[45CSR16; 40 CFR §60.5370(b); 40 CFR §60.5370a(b); 40 CFR §60.5370b(b)]

14.2. Monitoring Requirements

FUG AREAS 1 through 4 (40 CFR 60, Subpart OOOOa)

14.2.1. Exceptions to the equipment leak GHG and VOC standards for affected facilities at onshore natural gas processing plants:

a. The permittee may comply with the following exceptions to the provisions of 40 CFR §§60.5400a(a) and (b).

b. 1. Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in 40 CFR §60.485a(b) except as provided in 40 CFR §60.5400a(c) and in 40 CFR §60.5401a(b)(4), and 40 CFR §§60.482-4a(a) through (c) of 40 CFR 60, Subpart VVa.

2. If an instrument reading of 500 ppm or greater is measured, a leak is detected.

3. Leak Repair:

i. When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 CFR §60.482-9a.

ii. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

c. Sampling connection systems are exempt from the requirements of 40 CFR §60.482-5a.

d. An owner or operator may use the following provisions instead of 40 CFR §60.485a(e):

1. Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150°C (302°F) as determined by ASTM Method D86-96 (incorporated by reference as specified in 40 CFR §60.17).

2. Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150°C (302°F) as determined by ASTM Method D86-96 (incorporated by reference as specified in 40 CFR §60.17).

e. An owner or operator may use the following provisions instead of 40 CFR §60.485a(b)(2): A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of Appendix A-7 of 40 CFR 60, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in 40 CFR §60.486a(e)(8). For each scale, divide the arithmetic difference of the most recent calibration and the post-test calibration response by the corresponding calibration gas value, and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the most recent

calibration response, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the most recent calibration response, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

[45CSR16; 40 CFR §§60.5401a(a), (b)(1) to (3), (c), (f), and (g)]

FUG AREA 5 through 7 (40 CFR 60, Subpart OOOOb)

14.2.2. Exceptions to the GHG and VOC standards for process unit equipment affected facilities:

a. The permittee may comply with the following exceptions to the provisions of 40 CFR §§60.5400b(a) and 60.5401b(a), as applicable.

b. The permittee may use the following provisions instead of 40 CFR §60.5403b(d):

1. Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150°C (302°F) as determined by ASTM D86-96 (incorporated by reference, see 40 CFR §60.17).

2. Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150°C (302°F) as determined by ASTM D86-96 (incorporated by reference, see 40 CFR §60.17).

c. Equipment that is in vacuum service, except connectors in gas/vapor and light liquid service, is excluded from the requirements of 40 CFR §§60.5400b(b) through (g), if it is identified as required in 40 CFR §60.5421b(b)(15). Equipment that is in vacuum service is excluded from the requirements of 40 CFR §§60.5401b(b) through (g) if it is identified as required in 40 CFR §60.5421b(b)(15).

d. Equipment that is designated as having the potential to emit methane or VOC less than 300 hr/yr is excluded from the requirements of 40 CFR §§60.5400b(b) through (g) and 40 CFR §§60.5401b(b) through (h), if it is identified as required in 40 CFR §60.5421b(b)(16) and it meets any of the conditions specified in paragraphs d.1. through 3. of this condition.

1. The equipment has the potential to emit methane or VOC only during startup and shutdown.

2. The equipment has the potential to emit methane or VOC only during process malfunctions or other emergencies.

3. The equipment is backup equipment that has the potential to emit methane or VOC only when the primary equipment is out of service.

[45CSR16; 40 CFR §§60.5402b(a) and (d) to (f)]

14.2.3. **Initial compliance demonstration for process unit equipment affected facilities under 40 CFR 60, Subpart OOOOb.** To achieve initial compliance with the GHG and VOC standards for process unit equipment affected facilities as required by 40 CFR §60.5400b, the permittee must comply with paragraphs a. through d. and k. through o. of this condition, unless the permittee meets and complies with the exception

in 40 CFR §§60.5402b(b), (e), or (f) or meets the exemption in 40 CFR §60.5402b(c). If the permittee complies with the GHG and VOC standards for process unit equipment affected facilities using the alternative standards in 40 CFR §60.5401b, the permittee must comply with paragraphs e. through o. of this condition, unless the permittee meets the exemption in 40 CFR §60.5402b(b) or (c) or the exception in 40 CFR §60.5402b(e) or (f).

a. The permittee must conduct monitoring for each pump in light liquid service, pressure relief device in gas/vapor service, valve in gas/vapor or light liquid service and connector in gas/vapor or light liquid service as required by 40 CFR §60.5400b(b).

b. The permittee must conduct monitoring as required by 40 CFR §60.5400b(c) for each pump in light liquid service.

c. The permittee must conduct monitoring as required by 40 CFR §60.5400b(d) for each pressure relief device in gas/vapor service.

d. The permittee must comply with the equipment requirements for each open-ended valve or line as required by 40 CFR §60.5400b(e).

e. The permittee must conduct monitoring for each pump in light liquid service as required by 40 CFR §60.5401b(b).

f. The permittee must conduct monitoring for each pressure relief device in gas/vapor service as required by 40 CFR §60.5401b(c).

g. The permittee must comply with the equipment requirements for each open-ended valve or line as required by 40 CFR §60.5401b(d).

h. The permittee must conduct monitoring for each valve in gas/vapor or light liquid service as required by 40 CFR §60.5401b(f).

i. The permittee must conduct monitoring for each pump, valve, and connector in heavy liquid service and each pressure relief device in light liquid or heavy liquid service as required by 40 CFR §60.5401b(g).

j. The permittee must conduct monitoring for each connector in gas/vapor or light liquid service as required by 40 CFR §60.5401b(h).

k. For each pump equipped with a dual mechanical seal system that degasses the barrier fluid reservoir to a process or a control device, each pump which captures and transports leakage from the seal or seals to a process or a control device, or each pressure relief device which captures and transports leakage through the pressure relief device to a process or a control device, the permittee must meet the requirements of paragraph k.1. through 6. of this condition.

    1. Reduce methane and VOC emissions by 95.0 percent or greater and as demonstrated by the requirements of 40 CFR §60.5413b or route to a process.

    2. Install a closed vent system that meets the requirements of 40 CFR §§60.5411b(a) and (c) to capture all emissions from each pump equipped with a dual mechanical seal system that degasses the barrier fluid reservoir, each pump which captures and transports leakage from the seal or seals, or each

pressure relief device which captures and transports leakage through the pressure relief device and route all emissions to a process or to a control device that meets the conditions specified in 40 CFR §60.5412b.

3. If routing to a control device, conduct an initial performance test as required in 40 CFR §60.5413b within 180 days after initial startup, or install a control device tested under 40 CFR §60.5413b(d) which meets the criteria in 40 CFR §§60.5413b(d)(11) and (e), and the permittee must comply with the continuous compliance requirements of 40 CFR §60.5415b(f).

4. Conduct the initial inspections of the closed vent system and bypasses, if applicable, as required in 40 CFR §§60.5416b(a) and (b).

5. Install and operate the continuous parameter monitoring systems in accordance with 40 CFR §§60.5417b(a) through (i), as applicable.

6. Maintain the records as required by 40 CFR §§60.5420b(c)(8) and (c)(10) through (13), as applicable and submit the reports as required by 40 CFR §§60.5420b(b)(11) through (13), as applicable.

l. The permittee must tag and repair each identified leak as required in 40 CFR §60.5400b(h) or §60.5401b(i), as applicable.

m. The permittee must submit the notice required by 40 CFR §60.5420b(a)(1).

n. The permittee must submit the initial semiannual report and subsequent semiannual report as required by 40 CFR §60.5422b.

o. The permittee must maintain the records specified by 40 CFR §60.5421b.

[45CSR16; 40 CFR §60.5410b(h)]

14.2.4. **Continuous compliance demonstration for process unit equipment affected facilities under 40 CFR 60, Subpart OOOOb.** For each process unit equipment affected facility, the permittee must demonstrate continuous compliance with the requirements of 40 CFR §60.5400b according to paragraphs a. through d. and k. through o. of this condition, unless the permittee meets and complies with the exception in 40 CFR §60.5402b(b), (e), or (f) or meets the exemption in 40 CFR §60.5402b(c). Alternatively, if the permittee complies with the GHG and VOC standards for process unit affected facilities using the standards in 40 CFR §60.5401b, the permittee must comply with paragraphs e. through o. of this condition, unless the permittee meets the exemption in 40 CFR §60.5402b(b) or (c) or the exception in 40 CFR §§60.5402b(e) and (f).

a. The permittee must conduct monitoring for each pump in light liquid service, pressure relief device in gas/vapor service, valve in gas/vapor and light liquid service and connector in gas/vapor and light liquid service as required by 40 CFR §60.5400b(b).

b. The permittee must conduct monitoring as required by 40 CFR §60.5400b(c) for each pump in light liquid service.

c. The permittee must conduct monitoring as required by 40 CFR §60.5400b(d) for each pressure relief device in gas/vapor service.

d. The permittee must comply with the equipment requirements for each open-ended valve or line as required by 40 CFR §60.5400b(e).

e. The permittee must conduct monitoring for each pump in light liquid service as required by 40 CFR §60.5401b(b).

f. The permittee must conduct monitoring for each pressure relief device in gas/vapor service as required by 40 CFR §60.5401b(c).

g. The permittee must comply with the equipment requirements for each open-ended valve or line as required by 40 CFR §60.5401b(d).

h. The permittee must conduct monitoring for each valve in gas/vapor or light liquid service as required by 40 CFR §60.5401b(f).

i. The permittee must conduct monitoring for each pump, valve, and connector in heavy liquid service and each pressure relief device in light liquid or heavy liquid service as required by 40 CFR §60.5401b(g).

j. The permittee must conduct monitoring for each connector in gas/vapor or light liquid service as required by 40 CFR §60.5401b(h).

k. The permittee must collect emissions and meet the closed vent system requirements as required by 40 CFR §60.5416b for each pump equipped with a dual mechanical seal system that degasses the barrier fluid reservoir to a process or a control device, each pump which captures and transports leakage from the seal or seals to a process or control device, or each pressure relief device which captures and transports leakage through the pressure relief device to a process or control device.

l. The permittee must comply with the requirements specified in 40 CFR §60.5415b(f).

m. The permittee must tag and repair each identified leak as required in 40 CFR §60.5400(h) or §60.5401b(i), as applicable.

n. The permittee must submit semiannual reports as required by 40 CFR §60.5422b and the annual reports in 40 CFR §§60.5420b(b)(11)(i) through (iv), as applicable.

o. The permittee must maintain the records specified by 40 CFR §§60.5420b(c)(8), (c)(10), and (c)(12) as applicable and 40 CFR §60.5421b.

[45CSR16; 40 CFR §60.5415b(j)]

Compressors

14.2.5. **Initial compliance demonstration for 40 CFR 60, Subpart OOOO.** To achieve initial compliance with the standards for each reciprocating compressor affected facility the permittee must comply with paragraphs a. through d. of this condition.

a. If complying with 40 CFR §60.5385(a)(1) or (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 40 CFR §60.5385(a)(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 CFR §60.5411(a).

c. The permittee must submit the initial annual report for the reciprocating compressor as required in 40 CFR §60.5420(b).

d. The permittee must maintain the records as specified in 40 CFR §60.5420(c)(3) for each reciprocating compressor affected facility.

[45CSR16; 40 CFR §60.5410(c)]

14.2.6. **Continuous compliance demonstration for 40 CFR 60, Subpart OOOO.** For each reciprocating compressor affected facility complying with 40 CFR §60.5385(a)(1) or (2), the permittee must demonstrate continuous compliance according to paragraphs a. through c. of this condition. For each reciprocating compressor affected facility complying with 40 CFR §60.5385(a)(3), the permittee must demonstrate continuous compliance according to paragraph d. of this condition.

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 October 15, 2012, 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 40 CFR §60.5420(b) and maintain records as required in 40 CFR §60.5420(c)(3).

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 CFR §§60.5416(a) and (b).

[45CSR16; 40 CFR §60.5415(c)]

14.2.7. **Initial compliance demonstration for 40 CFR 60, Subpart OOOOa.** To achieve initial compliance with the standards for each reciprocating compressor affected facility the permittee must comply with paragraphs a. through d. of this condition.

a. If complying with 40 CFR §60.5385a(a)(1) or (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 40 CFR §60.5385a(a)(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 CFR §§60.5411a(a) and (d).

c. The permittee must submit the initial annual report for the reciprocating compressor as required in 40 CFR §§60.5420a(b)(1) and (4).

d. The permittee must maintain the records as specified in 40 CFR §60.5420a(c)(3) for each reciprocating compressor affected facility.

[45CSR16; 40 CFR §60.5410a(c)]

14.2.8. **Continuous compliance demonstration for 40 CFR 60, Subpart OOOOa.** For each reciprocating compressor affected facility complying with 40 CFR §60.5385a(a)(1) or (2), the permittee must demonstrate continuous compliance according to paragraphs a. through c. of this condition. For each reciprocating compressor affected facility complying with 40 CFR §60.5385a(a)(3), the permittee must demonstrate continuous compliance according to paragraph c.4. of this condition.

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 reports as required in 40 CFR §§60.5420a(b)(1) and (4) and maintain records as required in 40 CFR §60.5420a(c)(3).

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 CFR §§60.5416a(a) and (b).

[45CSR16; 40 CFR §60.5415a(c)]

14.2.9. **Initial compliance demonstration for 40 CFR 60, Subpart OOOOb.** To demonstrate initial compliance with the GHG and VOC standards for each reciprocating compressor affected facility as required by 40 CFR §60.5385b, the permittee must comply with paragraphs a. through g. of this condition.

a. If the permittee complies with 40 CFR §60.5385b by maintaining volumetric flow rate at or below 2 scfm per cylinder (or a combined cylinder volumetric flow rate greater than the number of compression cylinders multiplied by 2 scfm) as required by 40 CFR §60.5385b(a), the permittee must maintain volumetric flow rate at or below 2 scfm and the permittee must conduct the initial annual volumetric flow rate measurement as required by 40 CFR §60.5385b(a)(1).

b. If the permittee complies with 40 CFR §60.5385b by collecting the methane and VOC emissions from the reciprocating compressor rod packing using a rod packing emissions collection system as required by 40 CFR §60.5385b(d)(1), the permittee must equip the reciprocating compressor with a cover that meets the requirements of 40 CFR §60.5411b(b), route emissions to a process through a closed vent system that meets the requirements of 40 CFR §§60.5411b(a) and (c), and the permittee must conduct the initial inspections required in 40 CFR §§60.5416b(a) and (b).

c. If the permittee complies with 40 CFR §60.5385b(d) by collecting the emissions from the rod packing emissions collection system by using a control device to reduce VOC and methane emissions by 95.0 percent as required by 40 CFR §60.5385b(d)(2), the permittee must equip the reciprocating compressor with a cover that meets the requirements of 40 CFR §60.5411b(b), route emissions to a control device that meets the conditions specified in 40 CFR §60.5412b through a closed vent system that meets the

requirements of 40 CFR §§60.5411b(a) and (c) and the permittee must conduct the initial inspections required in 40 CFR §§60.5416b(a) and (b).

d. If the permittee complies with 40 CFR §60.5385b(d)(2), the permittee must conduct an initial performance test as required in 40 CFR §60.5413b within 180 days after initial startup, or install a control device tested under 40 CFR §60.5413b(d) which meets the criteria in 40 CFR §§60.5413b(d)(11) and (e) and the permittee must comply with the continuous compliance requirements of 40 CFR §60.5415b(f).

e. If the permittee complies with 40 CFR §60.5385b(d)(2), the permittee must install and operate the continuous parameter monitoring systems in accordance with 40 CFR §§60.5417b(a) through (i), as applicable.

f. The permittee must submit the initial annual report for the reciprocating compressor as required in 40 CFR §§60.5420b(b)(1), (6), and (11) through (13), as applicable.

g. The permittee must maintain the records as specified in 40 CFR §§60.5420b(c)(5) and (8) through (13) as applicable.

[45CSR16; 40 CFR §60.5410b(e)]

14.2.10. **Continuous compliance demonstration for 40 CFR 60, Subpart OOOOb.** For each reciprocating compressor affected facility complying with 40 CFR §§60.5385b(a) through (c), the permittee must demonstrate continuous compliance according to paragraphs a., e., and f. of this condition. For each reciprocating compressor affected facility complying with 40 CFR §60.5385b(d)(1) or (2), the permittee must demonstrate continuous compliance according to paragraphs b., e., and f. of this condition. For each reciprocating compressor affected facility complying with 40 CFR §60.5385b(d)(3), the permittee must demonstrate continuous compliance according to paragraphs c. through f. of this condition.

a. The permittee must maintain the volumetric flow rate at or below 2 scfm per cylinder (or at or below the combined volumetric flow rate determined by multiplying the number of cylinders by 2 scfm), and the permittee must conduct the required volumetric flow rate measurement of the reciprocating compressor rod packing vents in accordance with 40 CFR §60.5385b(b) on or before 8,760 hours of operation after the last volumetric flow rate measurement which demonstrated compliance with the applicable volumetric flow rate.

b. The permittee must operate the rod packing emissions collection system to route emissions to a control device or to a process through a closed vent system and continuously comply with the cover and closed vent requirements of 40 CFR §60.5416b. If the permittee complies with 40 CFR §60.5385b(d) by use a control device, the permittee also must comply with the requirements in 40 CFR §60.5415b(f).

c. The permittee must continuously monitor the number of hours of operation for each reciprocating compressor affected facility since initial startup, since the previous flow rate measurement, or since the date of the most recent reciprocating compressor rod packing replacement, whichever date is latest.

d. The permittee must replace the reciprocating compressor rod packing on or before the total number of hours of operation reaches 8,760 hours.

e. The permittee must submit the annual reports as required in 40 CFR §§60.5420b(b)(1), (6), and (11)(i) through (iv), as applicable.

f. The permittee must maintain records as required in 40 CFR §§60.5420b(c)(5), (8) through (10), and (12), as applicable.

[45CSR16; 40 CFR §60.5415b(g)]

14.2.11. **Additional continuous compliance requirements for reciprocating compressor and process unit equipment affected facilities under 40 CFR 60, Subpart OOOOb.** For each reciprocating compressor affected facility and each process unit equipment affected facility referenced to 40 CFR §60.5415b(f) from either 40 CFR §60.5415b(g)(2) or (j)(12), the permittee must also install monitoring systems as specified in 40 CFR §60.5417b, demonstrate continuous compliance according to 40 CFR §60.5415b(f)(1), maintain the records in 40 CFR §60.5415b(f)(2), and comply with the reporting requirements specified in 40 CFR §60.5415b(f)(3).
[45CSR16; 40 CFR §60.5415b(f)]

14.2.12. **Continuous monitoring requirements for control devices under Subpart OOOOb.** The permittee must meet the requirements of 40 CFR §60.5417b to demonstrate continuous compliance for each control device used to meet emission standards for reciprocating compressor and process unit equipment affected facilities.
[45CSR16; 40 CFR §60.5417b]

14.3. Testing Requirements

14.3.1. **Inspections for closed vent systems and covers installed on each reciprocating compressor affected facility under Subpart OOOO.** Except as provided in 40 CFR §§60.5416(b)(11) and (12), the permittee must inspect each closed vent system according to the procedures and schedule specified in paragraphs a. and b. of this condition, inspect each cover according to the procedures and schedule specified in paragraph c. of this condition, and inspect each bypass device according to the procedures of paragraph d. of this condition for reciprocating compressors complying with permit condition 14.1.6.a.3.

a. For each closed vent system joint, seam, or other connection that is permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange), the permittee must meet the requirements specified in paragraphs a.1. and 2. of this condition.

1. Conduct an initial inspection according to the test methods and procedures specified in 40 CFR §60.5416(b) to demonstrate that the closed vent system operates with no detectable emissions. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420(c)(6).

2. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. The permittee must monitor a component or connection using the test methods and procedures in 40 CFR §60.5416(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420(c)(6).

b. For closed vent system components other than those specified in paragraph a. of this condition, the permittee must meet the requirements of paragraphs b.1. through 3. of this condition.

1. Conduct an initial inspection according to the test methods and procedures specified in 40 CFR §60.5416(b) to demonstrate that the closed vent system operates with no detectable emissions. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420(c)(6).

2. Conduct annual inspections according to the test methods and procedures specified in 40 CFR §60.5416(b) to demonstrate that the components or connections operate with no detectable emissions. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420(c)(6).

3. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; liquid leaks; or broken or missing caps or other closure devices. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420(c)(6).

c. For each cover, the permittee must meet the following requirements:

1. Conduct visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover, or between the cover and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case where the storage vessel is buried partially or entirely underground, the permittee must inspect only those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

2. The permittee must initially conduct the inspections specified in paragraph c.1. of this condition following the installation of the cover. Thereafter, the permittee must perform the inspection at least once every calendar year, except as provided in 40 CFR §§60.5416(b)(11) and (12). The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420(c)(7).

d. For each bypass device, except as provided for in 40 CFR §60.5411, the permittee must meet the following requirements:

1. Set the flow indicator to take a reading at least once every 15 minutes at the inlet to the bypass device that could divert the steam away from the control device to the atmosphere.

2. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device. The permittee must maintain records of the inspections according to 40 CFR §60.5420(c)(8).

[45CSR16; 40 CFR §60.5416(a)]

14.3.2. **No detectable emissions test methods and procedures under Subpart OOOO.** If the permittee is required to conduct an inspection of a closed vent system or cover at the reciprocating compressor affected facility as specified in 40 CFR §60.5416(a)(1), (2), or (3), the permittee must meet the requirements of 40 CFR §§60.5416(b)(1) through (13).
[45CSR16; 40 CFR §60.5416(b)]

14.3.3. **Inspections for closed vent systems and covers installed on each reciprocating compressor affected facility under Subpart OOOOa.** Except as provided in paragraphs (b)(11) and (12) of 40 CFR §60.5416a, the permittee must inspect each closed vent system according to the procedures and schedule specified in paragraphs a. and b. of this condition, inspect each cover according to the procedures and schedule specified in paragraph c. of this condition, and inspect each bypass device according to the procedures of paragraph d. of this condition for reciprocating compressors complying with condition 14.1.8.a.3.

a. For each closed vent system joint, seam, or other connection that is permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange), the permittee must meet the requirements specified in paragraphs a.1. and 2. of this section.

1. Conduct an initial inspection according to the test methods and procedures specified in condition 14.3.4. to demonstrate that the closed vent system operates with no detectable emissions. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420a(c)(6).

2. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. The permittee must monitor a component or connection using the test methods and procedures in condition 14.3.4. to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420a(c)(6).

b. For closed vent system components other than those specified in paragraph a. of this section, the permittee must meet the requirements of paragraphs b.1. through 3. of this section.

1. Conduct an initial inspection according to the test methods and procedures specified in condition 14.3.4. to demonstrate that the closed vent system operates with no detectable emissions. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420a(c)(6).

2. Conduct annual inspections according to the test methods and procedures specified in condition 14.3.4. to demonstrate that the components or connections operate with no detectable emissions. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420a(c)(6).

3. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; liquid leaks; or broken or missing caps or other closure devices. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420a(c)(6).

c. For each cover, the permittee must meet the requirements in paragraphs c.1. and 2. of this condition.

1. Conduct visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover, or between the cover and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case where the storage vessel is buried partially or entirely underground, the permittee must inspect only those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

2. The permittee must initially conduct the inspections specified in paragraph c.1. of this condition following the installation of the cover. Thereafter, the permittee must perform the inspection at least once every calendar year, except as provided in paragraphs (b)(11) and (12) of 40 CFR §60.5416a. The permittee must maintain records of the inspection results as specified in 40 CFR §60.5420a(c)(7).

d. For each bypass device, except as provided for in 40 CFR §60.5411a(a)(3)(ii), the permittee must meet the requirements of paragraph d.1. or 2. of this section.

1. Set the flow indicator to take a reading at least once every 15 minutes at the inlet to the bypass device that could divert the steam away from the control device to the atmosphere.

2. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device. The permittee must maintain records of the inspections according to 40 CFR §60.5420a(c)(8).

[45CSR16; 40 CFR §60.5416a(a)]

14.3.4. **No detectable emissions test methods and procedures under Subpart OOOOa.** If the permittee is required to conduct an inspection of a closed vent system or cover at the reciprocating compressor affected facility as specified in paragraph (a)(1), (2), or (3) of 40 CFR §60.5416a, the permittee must meet the requirements of paragraphs (b)(1) through (13) of 40 CFR §60.5416a.
[45CSR16; 40 CFR §60.5416a(b)]

14.3.5. **Test methods and procedures for reciprocating compressor affected facilities under Subpart OOOOb.**

a. The permittee must use one of the methods described in paragraphs a.1. or 2. of this condition to screen for emissions or leaks from the reciprocating compressor rod packing when complying with 40 CFR §60.5385b(b)(1)(iii).

1. **OGI instrument.** Use an OGI instrument for equipment leak detection as specified in paragraph a.1.i. of this condition. For the purposes of paragraph a.1.i. of this condition, any visible emissions observed by the OGI instrument from reciprocating rod packing is a leak.

i. **OGI instrument as specified in Appendix K of 40 CFR 60.** For reciprocating compressor affected facilities located at onshore natural gas processing plants, use an OGI instrument to screen for emissions from reciprocating rod packing in accordance with the protocol specified in Appendix K of 40 CFR 60.

2. **Method 21.** Use Method 21 in Appendix A-7 to 40 CFR 60 according to 40 CFR §60.5403b(b)(1) and (2). For the purposes of this condition, an instrument reading of 500 parts per million by volume (ppmv) above background or greater is a leak.

b. The permittee must determine natural gas volumetric flow rate using a rate meter which meets the requirement in Method 2D in Appendix A-1 of 40 CFR 60. Rate meters must be calibrated on an annual basis according to the requirements in Method 2D.

c. The permittee must use a high-volume sampler to measure emissions of the reciprocating compressor rod packing, in accordance with 40 CFR §§60.5386b(c)(1) through (7).

d. As an alternative to a high-volume sampler, the permittee may use any other method that has been validated in accordance with the procedures specified in Method 301 in Appendix A in 40 CFR 63, subject to Administrator approval, as specified in 40 CFR §60.8(b).

[45CSR16; 40 CFR §§60.5386b(a), (a)(1), (a)(1)(i), (a)(2), and (b) to (d)]

14.3.6. **Performance testing procedures for control devices used to demonstrate compliance with the emission standards for reciprocating compressor and process unit equipment affected facilities.** The permittee must demonstrate that a control device achieves the performance requirements of 40 CFR §60.5412b(a)(1) or (2) using the performance methods and procedures specified in 40 CFR §60.5413b.
[45CSR16; 40 CFR §60.5413b]

14.3.7. **Inspections for closed vent systems, covers, and bypass devices at reciprocating compressor and process unit equipment affected facilities under Subpart OOOOb.** If the permittee installs a control device or routes emissions to a process, the permittee must inspect each closed vent system according to the procedures and schedule specified in paragraphs a. and b. of this condition, inspect each cover according to the procedures and schedule specified in paragraph c. of this condition, and inspect each bypass device according to the procedures of paragraph d. of this condition, except as provided in 40 CFR §§60.5416b(b)(7) and (8).

a. For each closed vent system joint, seam, or other connection that is permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange), the permittee must meet the requirements specified in paragraphs a.1. through 3. of this condition.

1. Conduct an initial inspection according to the test methods and procedures specified in 40 CFR §60.5416b(b) to demonstrate that the closed vent system operates with no identifiable emissions within the first 30 calendar days after startup of the affected facility routing emissions through the closed vent system.

2. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. The permittee must monitor a component or connection using the test methods and procedures in 40 CFR §60.5416b(b) to demonstrate that it operates with no identifiable emissions following any time the component is repaired or replaced or the connection is unsealed.

3. Conduct AVO inspections in accordance with and at the same frequency as specified for fugitive emissions components affected facilities located at the same type of site as specified in 40 CFR §60.5397b(g). Process unit equipment affected facilities must conduct annual AVO inspections concurrent with inspections required by paragraph a.2. of this condition.

b. For closed vent system components other than those specified in paragraph a.1. of this condition, the permittee must meet the requirements of paragraphs b.1. through 4. of this condition.

1. Conduct an initial inspection according to the test methods and procedures specified in 40 CFR §60.5416b(b) within the first 30 calendar days after startup of the affected facility routing emissions

through the closed vent system to demonstrate that the closed vent system operates with no identifiable emissions.

2. Conduct inspections according to the test methods, procedures, and frequencies specified in 40 CFR §60.5416b(b) to demonstrate that the components or connections operate with no identifiable emissions.

3. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; liquid leaks; or broken or missing caps or other closure devices. The permittee must monitor a component or connection using the test methods and procedures in 40 CFR §60.5416b(b) to demonstrate that it operates with no identifiable emissions following any time the component is repaired or replaced or the connection is unsealed.

4. Conduct AVO inspections in accordance with and at the same frequency as specified for fugitive emissions components affected facilities located at the same type of site, as specified in 40 CFR §60.5397b(g). Process unit equipment affected facilities must conduct annual AVO inspections concurrent with the inspections required by paragraph b.3. of this condition.

c. For each cover, the permittee must meet the requirements of paragraphs c.1. through 4. of this condition.

1. Conduct the inspections specified in c.2. through 4. of this condition to identify defects that could result in air emissions and to ensure the cover operates with no identifiable emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover, or between the cover and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case where the storage vessel is buried partially or entirely underground, the permittee must inspect only those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

2. An initial inspection according to the test methods and procedures specified in 40 CFR §60.5416b(b), following installation of the cover to demonstrate that each cover operates with no identifiable emissions.

3. Conduct AVO inspections in accordance with and at the same frequency as specified for fugitive emissions components affected facilities located at the same type of site as specified in 40 CFR §60.5397b(g). Process unit equipment affected facilities must conduct annual AVO inspections concurrent with the inspections required by paragraph a.2. of this condition.

4. Inspections according to the test methods, procedures, and schedules specified in 40 CFR §60.5416b(b) to demonstrate that each cover operates with no identifiable emissions.

d. For each bypass device, except as provided for in 40 CFR §60.5411b(a)(4)(ii), the permittee must meet the requirements of paragraphs d.1. or 2. of this condition.

1. Set the flow indicator to take a reading at least once every 15 minutes at the inlet to the bypass device that could divert the stream away from the control device and to the atmosphere.

2. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.

[45CSR16; 40 CFR §60.5416b(a)]

14.3.8. **No identifiable emissions test methods and procedures under Subpart OOOOb.** If the permittee is required to conduct an inspection of a closed vent system and cover as specified in 40 CFR §60.5416b(a)(1), (2), or (3) or 40 CFR §60.5398b(b), the permittee must meet the requirements of 40 CFR §§60.5416b(b)(1) through (9).
[45CSR16; 40 CFR §60.5416b(b)]

14.4. Recordkeeping Requirements

FUG AREAS 1 through 4 (40 CFR 60, Subpart OOOOa)

14.4.1. The permittee must comply with the requirements of condition 14.4.2. in addition to the requirements of 40 CFR §60.486a.
[45CSR16; 40 CFR §60.5421a(a)]

14.4.2. The following recordkeeping requirements apply to pressure relief devices subject to the requirements of 40 CFR §60.5401a(b)(1).

a. When each leak is detected as specified in 40 CFR §60.5401a(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, must be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

b. When each leak is detected as specified in 40 CFR §60.5401a(b)(2), the information specified in paragraphs b.1. through 10. of this condition must be recorded in a log and shall be kept for 2 years in a readily accessible location:

1. The instrument and operator identification numbers and the equipment identification number.

2. The date the leak was detected and the dates of each attempt to repair the leak.

3. Repair methods applied in each attempt to repair the leak.

4. “Above 500 ppm” if the maximum instrument reading measured by the methods specified in 40 CFR §60.5400a(d) after each repair attempt is 500 ppm or greater.

5. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

6. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

7. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

8. Dates of process unit shutdowns that occur while the equipment is unrepaired.

9. The date of successful repair of the leak.

10. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR §60.482-4a(a). The designation of equipment subject to the provisions of 40 CFR §60.482-4a(a) must be signed by the owner or operator.

[45CSR16; 40 CFR §60.5421a(b)]

FUG AREAS 5 through 7 (40 CFR 60, Subpart OOOOb)

14.4.3. **Recordkeeping requirements for process unit equipment affected facilities under Subpart OOOOb.** The permittee must maintain a record of each equipment leak monitoring inspection and each leak identified under 40 CFR §60.5400b and §60.5401b as specified in paragraphs b.1. through 17. of this condition. The record must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

a. The permittee may comply with the recordkeeping requirements for multiple process unit equipment affected facilities in one recordkeeping system if the system identifies each record by each facility.

b. The permittee must maintain the monitoring inspection records specified in paragraphs b.1. through 17. of this section.

1. Equipment Identification. Note that connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of 40 CFR 60, Subpart OOOOb are identified as a group, and the number of connectors subject is indicated.

2. Date and start and end times of the monitoring inspection.

3. Inspector name.

4. Leak determination method used for the monitoring inspection (i.e., OGI, Method 21, or AVO).

5. Monitoring instrument identification (OGI and Method 21 only).

6. Type of equipment monitored.

7. Process unit identification.

8. The records specified in Section 12 of Appendix K of 40 CFR 60, for each monitoring inspection conducted with OGI.

9. The records in paragraph b.9.i. through vii., for each monitoring inspection conducted with Method 21 of Appendix A-7 to 40 CFR 60.

i. Instrument reading.

ii. Date and time of instrument calibration and initials of operator performing the calibration.

iii. Calibration gas cylinder identification, certification date, and certified concentration.

iv. Instrument scale used.

v. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of Appendix A-7 to 40 CFR 60.

vi. Results of the daily calibration drift assessment.

vii. If the permittee makes the calibration gas, a description of the procedure used.

10. For visual inspections of pumps in light liquid service, keep the records specified in paragraphs b.10.i. through iii., for each monitored equipment:

i. Date of inspection.

ii. Inspector name.

iii. Result of inspection (i.e., visual indications of liquids dripping from the pump seal or no visual indications of liquids dripping from the pump seal).

11. For each leak detected, the records specified in paragraphs b.11.i. through v. of this condition:

i. The instrument and operator identification numbers and the process unit and equipment identification numbers. For leaks identified via AVO methods, enter the specific sensory method for instrument identification number.

ii. The date the leak was detected.

iii. For each attempt to repair the leak, record:

a. The date.

b. The repair method applied.

c. Indication of whether a leak was still detected following each attempt to repair the leak.

iv. The date of successful repair of the leak and the method of monitoring used to confirm the repair, as specified in paragraph b.11.iv.a. through c. of this condition.

a. If Method 21 of Appendix A-7 to 40 CFR 60 is used to confirm the repair, maintain a record of the maximum instrument reading measured by Method 21 of Appendix A-7 to 40 CFR 60.

b. If OGI conducted in accordance with Appendix K of 40 CFR 60 is used to confirm the repair, maintain a record of video footage of the repair confirmation.

c. If the leak is repaired by eliminating AVO indications of a leak, maintain a record of the specific sensory method used to confirm that the evidence of the leak is eliminated.

v. For each repair delayed beyond 15 calendar days after detection of the leak, record:

a. "Repair delayed" and the reason for the delay.

b. The signature of the certifying official who made the decision that repair could not be completed without a process shutdown.

c. The expected date of successful repair of the leak.

d. Dates of process unit shutdowns that occur while the equipment is unrepaired.

12. A list of identification numbers for equipment that are designated for no detectable emissions complying with the provisions of 40 CFR §60.5401b.

13. A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

14. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

15. A list of identification numbers for equipment that is in vacuum service.

16. A list of identification numbers for equipment designated as having the potential to emit methane or VOC less than 300 hr/yr.

17. A list of identification numbers for valves where it was infeasible to replace leaking valves with low-e valves or repack existing valves with low-e packing technology, including the reasoning for why it was infeasible.

[45CSR16; 40 CFR §60.5421b]

Compressors

14.4.4. **Recordkeeping requirements under Subpart OOOO.** The permittee must maintain the records identified as specified in 40 CFR §60.7(f) and in paragraphs a. through e. of this condition. All records required by 40 CFR 60, Subpart OOOO must be maintained either onsite or at the nearest local field office for at least 5 years.

a. For each reciprocating compressor affected facility, the permittee must maintain the following records:

1. Records of the cumulative number of hours of operation or number of months since initial startup or October 15, 2012, 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 40 CFR §60.5385(a)(3).

3. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in 40 CFR §60.5385.

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

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

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

e. If the permittee is subject to the closed vent system no detectable emissions requirements of 40 CFR §60.5416(b) for reciprocating compressors, a record of the monitoring conducted in accordance with 40 CFR §60.5416(b).

[45CSR16; 40 CFR §§60.5420(c), (c)(3), (c)(6), (c)(7), (c)(8), and (c)(9)]

14.4.5. **Recordkeeping requirements under Subpart OOOOa.** The permittee must maintain the records identified as specified in 40 CFR §60.7(f) and in paragraphs a. through e. of this condition. All records required by 40 CFR 60, Subpart OOOOa must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40 CFR 60, 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 latest. 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 40 CFR §60.5385a(a)(3).

3. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in 40 CFR §60.5385a, 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 CFR §§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) and the date of the inspection.

2. For each defect or leak detected during inspections required by 40 CFR §§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 CFR 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 CFR §60.5416a(b)(10), the permittee must record the reason for the delay and the date the repair is expected to be completed.

c. A record of each cover inspection required under 40 CFR §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) and the date of the inspection.

2. For each defect detected during inspections required by 40 CFR §60.5416a(a)(3), the permittee must record the location of the defect, a description of the defect, the date of detection, the corrective action taken to 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 CFR §60.5416a(b)(10), the permittee must record the reason for the delay and the date the repair is expected to be completed.

d. If the permittee is subject to the bypass requirements of 40 CFR §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 CFR §60.5411a(d):

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

2. A copy of the certification according to 40 CFR §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.

[45CSR16; 40 CFR §§60.5420a(c)(3), (c)(6), (c)(7), (c)(8), and (c)(17)]

14.4.6. **Recordkeeping requirements under Subpart OOOOb.** The permittee must maintain the records identified as specified in 40 CFR §60.7(f) and in 40 CFR §§60.5420b(c)(1) through (15). All records required by 40 CFR 60, Subpart OOOOb must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40 CFR 60, Subpart OOOOb that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain

electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

For each reciprocating compressor affected facility, the permittee must maintain the records in paragraphs a. through j. of this condition and in condition 14.4.7., as applicable. If complying with an alternative GHG and VOC standard under 40 CFR §60.5398b, in lieu of the information specified in condition 14.4.7.a., the permittee must provide the information specified in 40 CFR §60.5424b.

a. For each reciprocating compressor affected facility, the permittee must maintain records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in 40 CFR §60.5385b, including a description of each deviation, the date and time each deviation began and the duration of each deviation in hours.

b. Records of the date of installation of a rod packing emissions collection system and closed vent system as specified in 40 CFR §60.5385b(d).

c. Records of the cumulative number of hours of operation since initial startup or since the previous volumetric flow rate measurement, as applicable. Alternatively, a record that emissions from the rod packing are being routed to a process through a closed vent system.

d. A description of the method used and the results of the volumetric flow rate measurement or emissions screening, as applicable.

e. Records for all flow meters, composition analyzers and pressure gauges used to measure volumetric flow rates as specified in paragraphs e.1. through 6. of this condition.

    1. Description of standard method published by a consensus-based standards organization or industry standard practice.

    2. Records of volumetric flow rate calculations conducted according to 40 CFR §60.5385b(b) or (c), as applicable.

    3. Records of manufacturer operating procedures and measurement methods.

    4. Records of manufacturer's recommended procedures or an appropriate industry consensus standard method for calibration and results of calibration, recalibration, and accuracy checks.

    5. Records which demonstrate that measurements at the remote location(s) can, when appropriate correction factors are applied, reliably and accurately represent the actual temperature or total pressure at the flow meter under all expected ambient conditions. The permittee must include the date of the demonstration, the data from the demonstration, the mathematical correlation(s) between the remote readings and actual flow meter conditions derived from the data, and any supporting engineering calculations. If adjustments were made to the mathematical relationships, a record and description of such adjustments.

    6. Record of each initial calibration or a recalibration which failed to meet the required accuracy specification and the date of the successful recalibration.

f. Date when performance-based volumetric flow rate is exceeded.

g. The date of successful replacement or repair of reciprocating compressor rod packing, including follow-up performance-based volumetric flow rate measurement to confirm successful repair.

h. Identification of each reciprocating compressor placed on delay of repair because of rod packing or part unavailability and explanation for each delay of repair.

i. For each reciprocating compressor that is placed on delay of repair because of replacement rod packing or part unavailability, the operator must document: the date the rod packing or part was added to the delay of repair list, the date the replacement rod packing or part was ordered, the anticipated rod packing or part delivery date (including any estimated shipment or delivery date provided by the vendor), and the actual arrival date of the rod packing or part.

j. Date of planned shutdowns that occur while there are any reciprocating compressors that have been placed on delay of repair due to the unavailability of rod packing or parts to conduct repairs.

[45CSR16; 40 CFR §§60.5420b(c) and (c)(5)]

14.4.7. **Additional recordkeeping requirements for reciprocating compressor and process unit equipment affected facilities under Subpart OOOOb.** The permittee must maintain the records identified as specified in 40 CFR §60.7(f) and in 40 CFR §§60.5420b(c)(1) through (15). All records required by 40 CFR 60, Subpart OOOOb must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40 CFR 60, Subpart OOOOb that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

a. Records of each closed vent system inspection required under 40 CFR §§60.5416b(a)(1), (a)(2), and (b) for reciprocating compressor and process unit equipment affected facilities as required in paragraphs a.1. through 4. of this condition.

1. A record of each closed vent system inspection or no identifiable emissions monitoring survey. The permittee must include an identification number for each closed vent system (or other unique identification description selected by the permittee), the date of the inspection, and the method used to conduct the inspection (i.e., visual, AVO, OGI, Method 21 of Appendix A-7 to 40 CFR 60).

2. For each defect or emissions detected during inspections required by 40 CFR §§60.5416b(a)(1) and (2) or (b), the permittee must record the location of the defect or emissions; a description of the defect; the maximum concentration reading obtained if using Method 21 of Appendix A-7 to 40 CFR 60; the indication of emissions detected by AVO if using AVO; the date of detection; the date of each attempt to repair the emissions or defect; the corrective action taken during each attempt to repair the defect; and the date the repair to correct the defect or emissions is completed.

3. If repair of the defect is delayed as described in 40 CFR §60.5416b(b)(6), the permittee must record the reason for the delay and the date the repair is expected to be completed.

4. Parts of the closed vent system designated as unsafe to inspect as described in 40 CFR §60.5416b(b)(7) or difficult to inspect as described in 40 CFR §60.5416b(b)(8), the reason for the designation, and written plan for inspection of that part of the closed vent system.

b. A record of each cover inspection required under 40 CFR §60.5416b(a)(3) for the reciprocating compressor as required in paragraphs b.1. through 4. 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), the date of the inspection, and the method used to conduct the inspection (i.e., AVO, OGI, Method 21 of Appendix A-7 to 40 CFR 60).

2. For each defect detected during the inspection, the permittee must record the location of the defect; a description of the defect, the date of detection, the maximum concentration reading obtained if using Method 21 of Appendix A-7 to 40 CFR 60; the indication of emissions detected by AVO if using AVO; the date of each attempt to repair the defect; the corrective action taken during each attempt to 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 CFR §60.5416b(b)(6), the permittee must record the reason for the delay and the date the repair is expected to be completed.

4. Parts of the cover designated as unsafe to inspect as described in 40 CFR §60.5416b(b)(7) or difficult to inspect as described in 40 CFR §60.5416b(b)(8), the reason for the designation, and written plan for inspection of that part of the cover.

c. For each bypass subject to the bypass requirements of 40 CFR §60.5416b(a)(4), the permittee must maintain a record of the following, as applicable: readings from the flow indicator; each inspection of the seal or closure mechanism; the date and time of each instance the key is checked out; date and time of each instance the alarm is sounded.

d. Records for each control device used to comply with the emission reduction standard in 40 CFR §60.5385b(d)(2) for reciprocating compressor affected facilities or 40 CFR §§60.5400b(f) or 60.5401b(e) for the process equipment affected facilities, as required in 40 CFR §§60.5420b(c)(11)(i) through (viii). If using an enclosed combustion device or flare using an alternative test method approved under 40 CFR §60.5412b(d), keep records of the information in 40 CFR §60.5420b(c)(11)(ix), in lieu of the records required by 40 CFR §§60.5420b(c)(11)(i) through (iv) and (vi) through (viii).

e. For each closed vent system routing to a control device or process, the records of the assessment conducted according to 40 CFR §60.5411b(c):

1. A copy of the assessment conducted according to 40 CFR §60.5411b(c)(1); and

2. A copy of the certification according to 40 CFR §§60.5411b(c)(1)(i) and (ii).

f. A copy of each performance test submitted under 40 CFR §60.5420b(b)(12) or (b)(13).

[45CSR16; 40 CFR §§60.5420b(c) and (c)(8) to (c)(13)]

14.5. Reporting Requirements

FUG AREAS 1 through 4 (40 CFR 60, Subpart OOOOa)

14.5.1. The permittee must comply with the requirements of conditions 14.5.2. and 14.5.3. in addition to the requirements of 40 CFR §§60.487a(a), (b)(1) through (3), and (c)(2)(i) through (iv). The permittee must

submit semiannual reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*).) Use the appropriate electronic report in CEDRI for 40 CFR 60, Subpart OOOOa or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI website (*https://www3.epa.gov/ttn/chief/cedri/*). If the reporting form specific to 40 CFR 60, Subpart OOOOa is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available in CEDRI for at least 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The report must be submitted by the deadline specified in 40 CFR 60, Subpart OOOOa, regardless of the method in which the report is submitted.
[45CSR16; 40 CFR §60.5422a(a)]

14.5.2. An owner or operator must include the following information in the initial semiannual report in addition to the information required in 40 CFR §§60.487a(b)(1) through (3): Number of pressure relief devices subject to the requirements of 40 CFR §60.5401a(b) except for those pressure relief devices designated for no detectable emissions under the provisions of 40 CFR §60.482-4a(a) and those pressure relief devices complying with 40 CFR §60.482-4a(c).
[45CSR16; 40 CFR §60.5422a(b)]

14.5.3. An owner or operator must include the information specified in paragraphs a. and b. of this condition in all semiannual reports in addition to the information required in 40 CFR §§60.487a(c)(2)(i) through (iv):

a. Number of pressure relief devices for which leaks were detected as required in 40 CFR §60.5401a(b)(2); and

b. Number of pressure relief devices for which leaks were not repaired as required in 40 CFR §60.5401a(b)(3).

[45CSR16; 40 CFR §60.5422a(c)]

FUG AREAS 5 through 7 (40 CFR 60, Subpart OOOOb)

14.5.4. a. **Notification requirements.** The permittee must submit notifications according to paragraph a.1. of this condition for the process unit equipment affected facilities specified in 40 CFR §60.5365b that were constructed, modified, or reconstructed during the reporting period.

1. For a process unit equipment affected facility located at an onshore natural gas processing plant, the permittee must submit the notifications required in 40 CFR §§60.7(a)(1), (3), and (4) and 40 CFR §60.15(d).

[45CSR16; 40 CFR §§60.5420b(a) and (a)(1)]

b. **Reporting requirements.** The permittee must submit annual reports containing the information specified in 40 CFR §§60.5420b(b)(1) through (b)(14) following the procedure specified in 40 CFR §60.5420b(b)(15). The permittee must submit performance test reports as specified in 40 CFR §60.5420b(b)(12) or (13), if applicable. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR §60.5410b. 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 required as specified in 40 CFR §§60.5420b(b)(1) through (14). 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 CFR 60 may be submitted as long as the schedule does not extend the reporting period.

1. The general information specified in paragraphs b.1.i. through iv. of this condition is required for all reports.

   i. The company name, facility site name associated with the affected facility, U.S. Well ID or U.S. Well ID associated with the affected facility, if applicable, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

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

   iii. Beginning and ending dates of the reporting period.

   iv. 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. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces the requirement in this paragraph.

   [45CSR16; 40 CFR §§60.5420b(b)(1) and (b)(1)(i) to (iv)]

2. For each process unit equipment affected facility which uses a closed vent system routed to a control device to meet the emissions reduction standard, the permittee must submit the information in paragraphs b.2.i. through v. of this condition. For each process unit equipment which uses a closed vent system to route to a process, the permittee must submit the information in paragraphs b.2.i. through iv. of this condition.

   i. Dates of each inspection required under 40 CFR §§60.5416b(a) and (b).

   ii. Each defect or emissions identified during each inspection and the date of repair or the date of anticipated repair if the repair is delayed.

   iii. Date and time of each bypass alarm or each instance the key is checked out if the permittee is subject to the bypass requirements of 40 CFR §60.5416b(a)(4).

   iv. The permittee must submit the certification signed by the qualified professional engineer or in-house engineer according to 40 CFR §60.5411b(c) for each closed vent system routing to a control device or process in the reporting year in which the certification is signed.

v. If the permittee complies with the emissions standard for the process unit equipment affected facility with a control device, the information in 40 CFR §§60.5420b(b)(11)(v)(A) through (L), unless an enclosed combustion device or flare is used an alternative test method approved under 40 CFR §60.5412b(d). If an enclosed combustion device or flare using an alternative test method approved under 40 CFR §60.5412b(d), the information in 40 CFR §§60.5420b(b)(11)(v)(A) through (C) and (L) through (P).

[45CSR16; 40 CFR §60.5420b(b)(11)]

3. Within 60 days after the date of completing each performance test (see 40 CFR §60.8) required by 40 CFR 60, Subpart OOOOb, except testing conducted by the manufacturer as specified in 40 CFR §60.5413b(d), the permittee must submit the results of the performance test following the procedures specified in 40 CFR §60.5420b(d). Data collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or alternate electronic file.
[45CSR16; 40 CFR §60.5420b(b)(12)]

4. For combustion control devices tested by the manufacturer in accordance with 40 CFR §60.5413b(d), an electronic copy of the performance test results required by 40 CFR §60.5413b(d) shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following website: *https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry*.
[45CSR16; 40 CFR §60.5420b(b)(13)]

5. The permittee must submit the annual report using the appropriate electronic report template on the Compliance and Emissions Data Reporting Interface (CEDRI) website for 40 CFR 60, Subpart OOOOb and following the procedure specified in 40 CFR §60.5420b(d). If the reporting form specific to 40 CFR 60, Subpart OOOOb is not available on the CEDRI website at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available on the CEDRI website for at least 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The date reporting forms become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in 40 CFR 60, Subpart OOOOb, regardless of the method in which the report is submitted.
[45CSR16; 40 CFR §60.5420b(b)(15)]

c. **Electronic reporting.** If the permittee is required to submit notifications or reports following the procedure specified in this paragraph, the permittee must submit notifications or reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information you claim as CBI.
[45CSR16; 40 CFR §60.5420b(d)]

d. **Additional reporting requirements for process unit equipment affected facilities.**

1. The permittee must submit semiannual reports using the appropriate electronic report template on the CEDRI website for 40 CFR 60, Subpart OOOOb and following the procedure specified in paragraph c. of this condition. If the reporting form specific to 40 CFR 60, Subpart OOOOb is not available on the CEDRI website at the time that the report is due, submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available on the CEDRI website for at least 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The date reporting forms become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted within 45 days after the end of the semiannual reporting period, regardless of the method in which the report is submitted.

2. The initial semiannual report must include the following information:

i. The general information specified in paragraph d.3.i. of this condition.

ii. For each process unit:

a. Process unit identification.

b. Number of valves subject to the monitoring requirements of 40 CFR §§60.5400b(b) and 60.5401b(f).

c. Number of pumps subject to the monitoring requirements of 40 CFR §§60.5400b(b) and 60.5401b(b).

d. Number of connectors subject to the monitoring requirements of 40 CFR §§60.5400b(b) and 60.5401b(h).

e. Number of pressure relief devices subject to the monitoring requirements of 40 CFR §§60.5400b(b) and 60.5401b(c).

f. The information in 40 CFR §§60.5422b(c)(3) and (4).

3. All subsequent semiannual reports must include the following information:

i. The general information specified in paragraphs d.3.i.a. through c. of this condition.

a. The company name, facility site name, and address of the affected facility.

b. Beginning and ending dates of the reporting period.

c. 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. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces the requirement in this paragraph.

ii. Process unit identification for each process unit.

iii. For each month during the semiannual reporting period for each process unit report:

a. Number of valves for which leaks were detected as described in 40 CFR §60.5400b(b) or §60.5401b(f).

b. Number of valves for which leaks were not repaired as required in 40 CFR §60.5400b(h) or §60.5401b(i), the number of instances where it was technically infeasible to replace leaking valves with low-e valves or repack existing valves with low-e packing technology, including the reasoning for why it was technically infeasible.

c. Number of pumps for which leaks were detected as described 40 CFR §60.5400b(b) or §60.5401b(b).

d. Number of pumps for which leaks were not repaired as required in 40 CFR §60.5400b(h) or §60.5401b(i).

e. Number of connectors for which leaks were detected as described in 40 CFR §60.5400b(b) or §60.5401b(h).

f. Number of connectors for which leaks were not repaired as required in 40 CFR §60.5400b(h) or §60.5401b(i).

g. Number of pressure relief devices for which leaks were detected as described in 40 CFR §60.5400b(b) or §60.5401b(c).

h. Number of pressure relief devices for which leaks were not repaired as required in 40 CFR §60.5400b(h) or § 60.5401b(i).

i. Number of open-ended valves or lines for which leaks were detected as described in 40 CFR §60.5400b(e) or §60.5401b(d).

j. Number of open-ended valves or lines for which leaks were not repaired as required in 40 CFR §60.5400b(h) or §60.5401b(i).

k. Number of pumps, valves, or connectors in heavy liquid service or pressure relief device in light liquid or heavy liquid service for which leaks were detected as described in 40 CFR §60.5400b(g) or §60.5401b(g).

l. Number of pumps, valves, or connectors in heavy liquid service or pressure relief device in light liquid or heavy liquid service for which leaks were not repaired as required in 40 CFR §60.5400b(h) or §60.5401b(i).

m. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

iv. Dates of process unit shutdowns which occurred within the semiannual reporting period.

v. Revisions to items reported according to paragraph d.2. of this condition if changes have occurred since the initial report or subsequent revisions to the initial report.

[45CSR16; 40 CFR §60.5422b]

Compressors

14.5.5. **Reporting requirements under Subpart OOOO.** The permittee must submit annual reports containing the information specified in paragraphs a. and b. of this condition to the Administrator and performance test reports as specified in paragraph (b)(7) of 40 CFR §60.5420. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR §60.5410. Subsequent annual reports are due no later than same date each year as the initial annual report. If the permittee owns or operates more than one affected facility, the permittee may submit one report for multiple affected facilities provided the report contains all of the information required as 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 CFR 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.

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 in paragraphs b.1. and 2. of this condition.

1. The cumulative number of hours of operation or the number of months since initial startup, since October 15, 2012, or since the previous reciprocating compressor rod packing replacement, whichever is later.

2. Records of deviations specified in paragraph (c)(3)(iii) of 40 CFR §60.5420 that occurred during the reporting period.

[45CSR16; 40 CFR §§60.5420(b), (b)(1), and (b)(4)]

14.5.6. **Reporting requirements under Subpart OOOOa.** The permittee must submit annual reports containing the information specified in paragraphs (b)(1), (b)(4), and (b)(12) of 40 CFR §60.5420a. The permittee must submit annual reports following the procedure specified in paragraph (b)(11) of 40 CFR §60.5420a. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR §60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. If the permittee owns or operates more than one affected facility, the permittee may submit one report for multiple affected facilities provided the report contains all of the information required

as specified in paragraphs (b)(1) through (8) and (12) of 40 CFR §60.5420a. 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 CFR 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, U.S. Well ID or U.S. Well ID associated with the affected facility, if applicable, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

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 latest. 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 paragraph (c)(3)(iii) of 40 CFR §60.5420a, the date and time the deviation began, duration of the deviation, and a description of the deviation.

3. If required to comply with 40 CFR §60.5385a(a)(3), the information in paragraphs b.3.i. through iii. of this condition.

i. Dates of each inspection required under 40 CFR §§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 subject to the bypass requirements of 40 CFR §60.5416a(a)(4).

c. The permittee must submit reports to the EPA via CEDRI, except as outlined in 40 CFR §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 CFR 60, Subpart OOOOa (*https://www.epa.gov/electronic-reporting-air-emissions/cedri/*). If the reporting form

specific to 40 CFR 60, Subpart OOOOa is not available on the CEDRI website at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available in CEDRI for at least 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The date reporting forms become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the reports must be submitted by the deadlines specified in 40 CFR 60, Subpart OOOOa, regardless of the method in which the reports are submitted. The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information claimed as CBI. Although we do not expect persons to assert a claim of CBI, if the permittee wishes to assert a CBI claim for some of the information in the report, submit a complete file using the appropriate electronic report template on the CEDRI website, including information claimed to be CBI, to the EPA following the procedures in 40 CFR §§60.5420a(b)(11)(i) and (ii). Clearly mark the part or all of the information claimed to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. Submit the same file submitted to the CBI office with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in 40 CFR §60.5420a(b)(11).

1. The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address *oaqpscbi@epa.gov* and, as described above, should include clear CBI markings. Files should be flagged to the attention of the Oil and Natural Gas Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if the permittee does not have a file sharing service, please email *oaqpscbi@epa.gov* to request a file transfer link.

2. If the permittee cannot transmit the file electronically, the permittee may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Oil and Natural Gas Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

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

[45CSR16; 40 CFR §§60.5420a(b), (b)(1), (b)(4), (b)(11), and (b)(12)]

14.5.7. a. **Notification requirements under Subpart OOOOb.** The permittee must submit notifications according to paragraph a.1. of this condition for reciprocating compressor affected facilities specified in 40 CFR §60.5365b that were constructed, modified, or reconstructed during the reporting period.

1. For a reciprocating compressor affected facility, the permittee is not required to submit the notifications required in 40 CFR §§60.7(a)(1), (3), and (4) and 40 CFR §60.15(d).

[45CSR16; 40 CFR §§60.5420b(a) and (a)(1)]

b. **Reporting requirements under Subpart OOOOb.** The permittee must submit annual reports containing the information specified in 40 CFR §§60.5420b(b)(1), (b)(6), and (b)(11) through (b)(13) following the procedure specified in 40 CFR §60.5420b(b)(15). The permittee must submit performance test reports as specified in 40 CFR §60.5420b(b)(12) or (13), if applicable. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR §60.5410b. 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 required as specified in 40 CFR §§60.5420b(b)(1) through (14). 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 CFR 60 may be submitted as long as the schedule does not extend the reporting period.

1. The general information specified in paragraphs b.1.i. through iv. of this condition is required for all reports.

i. The company name, facility site name associated with the affected facility, U.S. Well ID or U.S. Well ID associated with the affected facility, if applicable, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

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

iii. Beginning and ending dates of the reporting period.

iv. 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. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces the requirement in this paragraph.

[45CSR16; 40 CFR §§60.5420b(b)(1) and (b)(1)(i) to (iv)]

2. For each reciprocating compressor affected facility, the information specified in paragraphs b.2.i. through vii. of this condition, as applicable.

i. The cumulative number of hours of operation since initial startup, since the previous volumetric flow rate measurement, or since the previous reciprocating compressor rod packing replacement, as applicable, which have elapsed prior to conducting the volumetric flow rate

measurement or emissions screening. Alternatively, a statement that emissions from the rod packing are being routed to a process or control device through a closed vent system.

ii. If applicable, for each deviation that occurred during the reporting period and recorded as specified in 40 CFR §60.5420b(c)(5)(i), the date and time the deviation began, duration of the deviation in hours and a description of the deviation. If no deviations occurred during the reporting period, the permittee must include a statement that no deviations occurred during the reporting period.

iii. A description of the method used and the results of the volumetric flow rate measurement or emissions screening, as applicable.

iv. If complying with 40 CFR §60.5385b(d)(1) or (2), the information in paragraphs b.3.i. through iv. of this condition. If complying by routing emissions to a control device, as required in 40 CFR §60.5385b(d)(2), the information in paragraph b.3.v. of this condition.

v. Number and type of rod packing replacements/repairs on delay of repair and explanation for each delay of repair.

vi. Date of planned shutdown(s) that occurred during the reporting period if there are any rod packing replacements/repairs that have been placed on delay of repair.

vii. If complying with an alternative GHG and VOC standard under 40 CFR §60.5398b, in lieu of the information specified in paragraphs b.3.i. and ii. of this condition, the permittee must provide the information specified in 40 CFR §60.5424b.

[45CSR16; 40 CFR §60.5420b(b)(6)]

3. For each reciprocating compressor affected facility which uses a closed vent system routed to a control device to meet the emissions reduction standard, the permittee must submit the information in paragraphs b.3.i. through v. of this condition. For each reciprocating compressor which uses a closed vent system to route to a process, the permittee must submit the information in paragraphs b.3.i. through iv. of this condition. For each reciprocating compressor equipped with a cover, the permittee must submit the information in paragraphs b.3.i. and ii. of this condition.

i. Dates of each inspection required under 40 CFR §§60.5416b(a) and (b).

ii. Each defect or emissions identified during each inspection and the date of repair or the date of anticipated repair if the repair is delayed.

iii. Date and time of each bypass alarm or each instance the key is checked out if the permittee is subject to the bypass requirements of 40 CFR §60.5416b(a)(4).

iv. The permittee must submit the certification signed by the qualified professional engineer or in-house engineer according to 40 CFR §60.5411b(c) for each closed vent system routing to a control device or process in the reporting year in which the certification is signed.

v. If the permittee complies with the emissions standard for the reciprocating compressor affected facility with a control device, the information in 40 CFR §§60.5420b(b)(11)(v)(A) through (L),

unless an enclosed combustion device or flare is used an alternative test method approved under 40 CFR §60.5412b(d). If the permittee uses an enclosed combustion device or flare using an alternative test method approved under 40 CFR §60.5412b(d), the information in 40 CFR §§60.5420b(b)(11)(v)(A) through (C) and (L) through (P).

[45CSR16; 40 CFR §60.5420b(b)(11)]

4. Within 60 days after the date of completing each performance test (see 40 CFR §60.8) required by 40 CFR 60, Subpart OOOOb, except testing conducted by the manufacturer as specified in 40 CFR §60.5413b(d), the permittee must submit the results of the performance test following the procedures specified in 40 CFR §60.5420b(d). Data collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or alternate electronic file.
[45CSR16; 40 CFR §60.5420b(b)(12)]

5. For combustion control devices tested by the manufacturer in accordance with 40 CFR §60.5413b(d), an electronic copy of the performance test results required by 40 CFR §60.5413b(d) shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following website: *https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry*.
[45CSR16; 40 CFR §60.5420b(b)(13)]

6. The permittee must submit the annual report using the appropriate electronic report template on the Compliance and Emissions Data Reporting Interface (CEDRI) website for 40 CFR 60, Subpart OOOOb and following the procedure specified in 40 CFR §60.5420b(d). If the reporting form specific to 40 CFR 60, Subpart OOOOb is not available on the CEDRI website at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available on the CEDRI website for at least 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The date reporting forms become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.
[45CSR16; 40 CFR §60.5420b(b)(15)]

c. **Electronic reporting.** If the permittee is required to submit notifications or reports following the procedure specified in this paragraph, the permittee must submit notifications or reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information you claim as CBI.
[45CSR16; 40 CFR §60.5420b(d)]

14.6. Compliance Plan

14.6.1. None

15.0 NPP: Turbines and Duct Burners [emission point ID(s): TB1A/B to TB4A/B]

15.1. Limitations and Standards

15.1.1. **Combustion Turbines**
The combustion turbines (CTs) shall meet the following requirements:

a. R13-3493 only authorizes construction and operation of one (1) set of the four (4) same make/model CTs defined as either "Scenario A" or "Scenario B" under the table titled "Natrium Power Plant" in Section 1.1. of this permit. This permit does not authorize any scenario where more than four (4) CTs are authorized.

b. Each group of authorized CTs shall be the make, model, and size as specified under the "Natrium Power Plant" table and shall only be fired by pipeline-quality natural gas, ethane, or some combination thereof.

c. With the exception of operation during times defined as "startup" or "shutdown" pursuant to 15.2.1., at all times each CT is in operation, each unit shall be controlled by Selective Catalytic Reduction (SCR) for control of NO_X emissions and an Oxidation Catalyst for control of CO and unburnt hydrocarbon (UHC) emissions.

d. Each CT shall be fired using good combustion practices. Good Combustion Practices shall mean activities such as maintaining operating logs and recordkeeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.

e. The maximum emissions from each CT shall not exceed the limits (during the specific operational times) as given in the following table:

Table 15.1.1.e. – Scenario A: CT Emission Limits

GE LM6000PG SPRINT Emission Limits				
Pollutant	**lb/hr**			**ton/year**
	Startup	**Shutdown**	**Steady-State**	
CO	152.90	95.82	2.04	10.40
NO_X	41.86	41.86	3.35	15.13
$PM_{2.5}$/PM_{10}/PM[(1)]	3.19	3.19	3.86	16.91
SO_2	1.64	1.64	1.64	7.19
VOC	4.81	4.81	0.44	1.97
Formaldehyde	0.34	0.34	0.34	1.50
Total HAPs	0.49	0.49	0.49	2.17

(1) Includes condensables.

Table 15.1.1.e. – Scenario B: CT Emission Limits

Siemens SGT-800 Emission Limits				
Pollutant	**lb/hr**			**ton/year**
	Startup	**Shutdown**	**Steady-State**	
CO	51.84	12.48	0.61	10.74
NO_X	25.68	20.88	3.49	20.35
$PM_{2.5}/PM_{10}/PM$[(1)]	0.72	0.48	3.52	14.86
SO_2	1.69	1.69	1.69	7.39
VOC	2.88	0.48	0.35	1.86
Formaldehyde	0.13	0.13	0.13	0.57
Total HAPs	0.29	0.29	0.29	1.25

(1) Includes condensables.

f. The CTs shall each not operate in the modes defined as "startup" and "shutdown" (as defined under 15.2.1.) in excess of the annual hourly limits given in the following table:

Table 15.1.1.f.: CT Annual Startup/Shutdown Hours of Operation Limits

CT	Startup	Shutdown
GE LM6000PG SPRINT	12	12
Siemens SGT-800	256	256

g. At the time operation of the CTs commences, the permittee shall have, and make available to the Director upon request, guarantees from the appropriate equipment vendors that the following maximum emission rates are achievable from the equipment in question:

Table 15.1.1.g.: CT Vendor Guarantee Requirements (in ppmvd at 15% O_2)

Pollutant	GE LM6000PG SPRINT		Siemens SGT-800	
	Uncontrolled	**Controlled**	**Uncontrolled**	**Controlled**
CO	94.0	2.0	5.0	0.5
NO_X	25.0	2.0	35.0	1.8
$PM_{2.5}/PM_{10}/PM$	N/A	N/A	2.5	N/A
VOC	11.0	1.0	5.0	0.5
Formaldehyde	N/A	N/A	0.1	0.1

h. The amount of power supplied by each CT to the utility distribution systems (not used at the plant and supplied instead to the "grid") shall be less than 219,000 MW-hour per year.

[45CSR13, R13-3493, 4.1.2.a. to h.]

15.1.2. **Duct Burners**

The Duct Burners, identified as TB1A/B through TB4A/B, shall meet the following requirements:

a. Each Duct Burner will not exceed an MDHI of 475.1 MMBtu/hr and shall only be fired by pipeline-quality natural gas, ethane, or some combination thereof.

b. At all times each Duct Burner is in operation, the exhaust from each unit shall be controlled by Selective Catalytic Reduction (SCR) for control of NO_X emissions and an oxidation catalyst for control of CO and unburnt hydrocarbon (UHC) emissions. The Duct Burners shall not be operated during times defined as "startup" or "shutdown" pursuant to condition 15.2.1.

c. Each Duct Burner shall be fired using good combustion practices. Good combustion practices shall mean activities such as maintaining operating logs and recordkeeping, conducting training, ensuring maintenance knowledge, performing routine and preventative maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.

d. The maximum emissions from each Duct Burner shall not exceed the limits as given in the following table.

Table 15.1.2.d.: Per-Duct Burner Emission Limits

Pollutant	lb/hour	ton/year
CO	2.12	1.86
NO_X	3.50	3.05
$PM_{2.5}$/PM_{10}/PM[(1),(2)]	3.65	3.19
SO_2[(3)]	0.28	0.24
VOC	0.13	0.11
Formaldehyde	0.03	0.03
Total HAPs	0.05	0.04

(1) Includes condensables.
(2) Compliance with this limit will ensure compliance with 45CSR§§2-4.1. and -4.1.2.
(3) Compliance with this limit will ensure compliance with 45CSR§§10-3.1. and -3.1.5.

e. At the time operation of the Duct Burners commences, the permittee shall have, and make available to the Director upon request, guarantees from the appropriate equipment vendors that the following maximum emission rates are achievable from the Duct Burners:

Table 15.1.2.e.: Duct Burner Vendor Guarantee Requirements (in ppmvd at 15% O_2)

Pollutant	Requirement
CO	2.0
NO_X	2.0
VOC	1.0

f. The Duct Burners shall each not combust in excess of 610.81 mmscf of fuel gas per year.

g. **45CSR2**
The Duct Burners are subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under paragraphs g.1. through 5. of this condition.

1. 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 10 percent opacity based on a six-minute block average.
[45CSR§2-3.1.]

2. Compliance with the visible emission requirements of 45CSR§2-3.1. shall be determined in accordance with 40 CFR 60, Appendix A, Method 9 and 45CSR16 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary 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 45CSR§2-3.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

3. No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

   i. For Type "b" fuel burning units, the product of 0.09 and the total design heat inputs for such units in MMBtu/hr, provided however that no more than 600 lb/hr of particulate matter shall be discharged into the open air from all such units.

   [45CSR§§2-4.1. and -4.1.2.]

4. The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Secretary. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Secretary.
[45CSR§2-4.4.]

5. At all times, including periods of startups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) 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 Secretary which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.
[45CSR§2-9.2.]

h. **45CSR10**
The Duct Burners are subject to the applicable limitations and standards under 45CSR10, including the requirements in paragraph h.1. of this condition.

1. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

   i. For Type "b" fuel burning units, the product of 3.1 and the total design heat inputs for such units discharging through those stacks in MMBtu/hr.

[45CSR§§10-3.1. and -3.1.5.]

[45CSR13, R13-3493, 4.1.3.a. to h.; 45CSR2; 45CSR10]

15.1.3. **40 CFR 60, Subpart KKKK**

The Combustion Turbines and Duct Burners shall meet all applicable requirements under 40 CFR 60, Subpart KKKK including the following:

a. The permittee must meet the emission limits for NO_X specified in Table 1 to Subpart KKKK of Part 60.

Table 1 to Subpart KKKK of Part 60 – Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Combustion Turbine Type	Combustion Turbine Heat Input at Peak Load (HHV)	NO_X Emission Standard
New turbine firing natural gas	> 50 MMBtu/hr and ≤ 850 MMBtu/hr	25 ppm at 15% O_2 or 150 ng/J of useful output (1.2 lb/MWh)
Turbines operating at less than 75 percent of peak load and turbines operating at temperatures less than 0°F	> 30 MW output	96 ppm at 15 % O_2 or 590 ng/J of useful output (4.7 lb/MWh)

[45CSR16; 40 CFR §60.4320(a); Table 1 to Subpart KKKK of Part 60]

b. The permittee must meet the emission limits for SO_2 specified in either paragraphs b.1. or 2. of this condition.

1. The permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output; or

2. The permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

[45CSR16; 40 CFR §§60.4330(a), (a)(1), and (a)(2)]

c. The permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. **[45CSR16; 40 CFR §60.4333(a)]**

[45CSR13, R13-3493, 4.1.2.i. and 4.1.3.i.]

15.1.4. **Control Devices**

Use of SCR systems and oxidation catalysts shall be in accordance with the following:

a. The SCR systems and oxidation catalysts shall be designed, operated and maintained according to good engineering practices and manufacturing recommendations so as to achieve, at a minimum, the following limits on each emission unit:

1. LM6000PG

i. NO_X: 2.0 ppmvd at 15% O_2

ii. CO: 2.0 ppmvd at 15% O_2

iii. VOCs: 1.0 ppmvd at 15% O_2

2. SGT-800

i. NO_X: 1.75 ppmvd at 15% O_2

ii. CO: 0.5 ppmvd at 15% O_2

iii. VOCs: 0.5 ppmvd at 15% O_2

iv. Formaldehyde: 0.1 ppmvd at 15% O_2

3. Duct Burner

i. NO_X: 2.0 ppmvd at 15% O_2

ii. CO: 2.0 ppmvd at 15% O_2

iii. VOCs: 1.0 ppmvd at 15% O_2

b. Catalyst performance shall be monitored and catalysts replaced according to good engineering practices and manufacturing recommendations.

c. The permittee shall operate each SCR in the optimal aqueous ammonia injection range as determined according to manufacturer recommendations or during the required performance testing. Ammonia/Urea slip from each SCR shall not exceed 5 ppmvd at 15% O_2.

[45CSR13, R13-3493, 4.1.7.a. to c.]

15.1.5. **45CSR40**

The Combustion Turbines must meet all applicable requirements for ozone season NO_X emissions under 45CSR40, including the following:

a. Ozone Season NO_X Emission Limitation – The owner or operator of a unit that meets the applicability requirements set forth in 45CSR§40-4.1. shall limit emissions of NO_X during an ozone season pursuant to a NO_X emission rate for each unit contained in Condition 4.1.2.e. of R13-3493 (Condition 15.1.1.e. of the Title V operating permit).
[45CSR§40-5.1.]

b. The owner or operator of an applicable unit under 45CSR§40-4.1. shall install and operate a certified continuous emission monitoring system (CEMS) as necessary to attribute ozone season mass emissions of NO_X to each unit in accordance with 45CSR§40-6.5. Nitrogen oxides mass emissions measurements recorded and reported in accordance with 45CSR§40-6.5. shall be used to determine a unit's compliance with the ozone season NO_X emission limitation set forth in 45CSR§40-5.
[45CSR§40-6.1.]

c. An owner or operator of a combustion turbine unit that elects to demonstrate compliance using a CEMS shall meet the following requirements:

1. Install and certify the CEMS in accordance with Performance Specification 2 in Appendix B to 40 CFR 60 and 45CSR16;

2. Conduct the performance tests in accordance with 40 CFR §60.4400;

3. Operate and maintain the CEMS in accordance with 40 CFR §60.4345 on a continuous basis;

4. Collect all CEMS data in accordance with 40 CFR §60.4350;

5. For each month of the ozone season:

i. Determine total monthly heat input (in MMBtu) using fuel flowmeters and measurements or records of fuel gross calorific value, or in instances where fuel flow is not metered determine total monthly heat input (in MMBtu) from other measurements and records; and

ii. Calculate total monthly NO_X mass emissions (in tons) by multiplying the total monthly heat input by the 30-day rolling average NO_X emission rate (in lb/MMBtu) determined under 45CSR§§40-6.5.c. and -6.5.d. for the last day of the month on which the unit operated and divide by 2,000;

6. Determine the total NO_X mass emissions for the ozone season (in tons) by summing the amounts of total monthly NO_X mass emissions calculated under 45CSR§40-6.5.e. for each month of the ozone season; and

7. Comply with the following reporting and recordkeeping requirements:

i. Maintain records in accordance with 40 CFR §60.49b and all additional records necessary to support the heat input data, 30-day rolling average NO_X emission rate data, and NO_X mass emissions computations described in 45CSR§§40-6.5.e. and -6.5.f.; and

ii. Submit to the Secretary reports in accordance with 40 CFR §60.49b and include the total monthly heat input data, 30-day rolling average NO_X emission rate data, and monthly and ozone season NO_X mass emissions computations described in 45CSR§§40-6.5.e. and -6.5.f.

[45CSR§40-6.5.]

15.2. Monitoring Requirements

15.2.1. **Startup/Shutdowns.** For the purposes of demonstrating compliance with the maximum startup and shutdown operating hours as given under 15.1.1.f., the permittee shall monitor and record the monthly and rolling twelve (12) month total of hours each CT is operating in startup and shutdown mode. The record shall show the distinct hours of operation in each mode. "Startup" and "Shutdown" shall be defined as those periods where the exhaust temperature of the CTs is not sufficient for the SCR's and Oxidation Catalysts to effectively meet the limitations given under 15.1.4.
[45CSR13, R13-3493, Condition 4.2.3.]

15.2.2. **Grid Power Distribution.** For the purposes of demonstrating compliance with the maximum power export limitations as given under 15.1.1.h., the permittee shall monitor and record the monthly and rolling twelve (12) month total watts (in MW) exported to the power grid (i.e., not used for on-site power).
[45CSR13, R13-3493, Condition 4.2.4.]

15.2.3. **Duct Burner Fuel Usage.** For the purposes of demonstrating compliance with the maximum Duct Burner fuel usage limitations as given under 15.1.2.f., the permittee shall monitor and record the monthly and rolling twelve (12) month total of the volume of fuel used in each Duct Burner.
[45CSR13, R13-3493, Condition 4.2.5.]

15.2.4. a. **CEMS.** Within 60 days after achieving the maximum power generation rate at which the facility will be operated, but no later than 180 days after initial startup, the permittee shall, to show continuous compliance with the NO_X emission limits as given under Conditions 15.1.1.e., 15.1.1.g., 15.1.2.d., 15.1.2.e., and 15.1.4., install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of NO_X from each Combustion Turbine and Duct Burner. The CEMS shall be installed, maintained, and operated according to the applicable requirements given under 40 CFR 60, Subpart KKKK and any additional subparts referenced thereto. Data recorded by the CEMS shall be kept for a period not less than three (3) years and shall be made available to the Director or his/her representative upon request.
[45CSR13, R13-3493, Condition 4.2.6.; 45CSR§30-5.1.c.]

b. **40 CFR 60, Subpart KKKK Requirements for the NO_X CEMS.**

1. The permittee must install, calibrate, maintain, and operate the CEMS as described in 40 CFR §§60.4335(b) and 60.4345.

i. Install, certify, maintain and operate a CEMS consisting of a NO_X monitor and diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_X emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu).
[40 CFR §§60.4335(b) and (b)(1)]

ii. The following requirements for the NO_X CEMS equipment must be met:

a. Each NO_X diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in 40 CFR 60, Appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in 40 CFR 60, Appendix F is not required. Alternatively, a NO_X diluent CEMS that is installed and certified according to 40 CFR 75, Appendix A is acceptable for use under 40 CFR 60, Subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

b. As specified in 40 CFR §60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour.

c. Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of Appendix D to 40 CFR 75 are acceptable for use under 40 CFR 60, Subpart KKKK.

d. Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

e. The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs a., c., and d. of this condition. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in Section 1 of Appendix B to 40 CFR 75.

[40 CFR §60.4345]

[40 CFR §§60.4340(b) and (b)(1)]

2. For the purposes of identifying excess emissions using the continuous emission monitoring equipment:

i. All CEMS data must be reduced to hourly averages as specified in 40 CFR §60.13(h).

ii. For each unit operating hour in which a valid hourly average, as described in 40 CFR §60.4345(b), is obtained for both NO_X and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_X emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 in Appendix A of 40 CFR 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations.

iii. Correction of measured NO_X concentrations to 15 percent O_2 is not allowed.

iv. If the permittee has installed and certified a NO_X diluent CEMS to meet the requirements of 40 CFR 75, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under 40 CFR 60, Subpart KKKK. Periods where the missing data substitution procedures in 40 CFR 75, Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR §60.7(c).

v. All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.

vi. Calculate the hourly average NO_X emission rates, in units of the emission standards under 40 CFR §60.4320, using either ppm for units complying with the concentration limit or the following equation for units complying with the output-based standard.

a. For simple-cycle operation:

$$E = \frac{(NO_X)_h \times (HI)_h}{P} \quad \text{Eq. 1}$$

Where:
E = hourly NO_X emission rate, in lb/MWh,
$(NO_X)_h$ = hourly NO_X emission rate, in lb/MMBtu,
$(HI)_h$ = hourly heat input rate to the unit, in MMBtu/hr, measured using the fuel flowmeter(s), e.g., calculated using Equation D-15a in Appendix D to 40 CFR 75, and
P = gross energy output of the combustion turbine in MW.

b. For combined-cycle and combined heat and power complying with the output-based standard, use Eq. 1 in this condition, except that the gross energy output is calculated as the sum of the total electrical and mechanical energy generated by the combustion turbine, the additional electrical or mechanical energy (if any) generated by the steam turbine following the heat recovery steam generator, and 100 percent of the total useful thermal energy output that is not used to generate additional electricity or mechanical output, expressed in equivalent MW, as in the following equations:

$$P = (Pe)_t + (Pe)_c + Ps + Po \quad \text{Eq. 2}$$

Where:
P = gross energy output of the stationary combustion turbine system in MW,
$(Pe)_t$ = electrical or mechanical energy output of the combustion turbine in MW, and
$(Pe)_c$ = electrical or mechanical energy output (if any) of the steam turbine in MW.

$$Ps = \frac{Q \times H}{3.413 \times 10^6\ Btu/MWh} \quad \text{Eq. 3}$$

Where:
Ps = useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electrical or mechanical output, in MW,
Q = measured steam flow rate in lb/hr,
H = enthalpy of the steam at measured temperature and pressure relative to ISO conditions Btu/lb, and

3.413×10^6 = conversion from Btu/hr to MW, and
Po = other useful heat recovery, measured relative to ISO conditions, not used for steam generation or performance enhancement of the combustion turbine.

c. For mechanical drive applications complying with the output-based standard, use the following equation:

$$E = \frac{(NO_X)_m}{BL \times AL} \quad \text{Eq. 4}$$

Where:
$E = NO_X$ emission rate in lb/MWh,
$(NO_X)_m = NO_X$ emission rate in lb/hr,
BL = manufacturer's base load rating of turbine, in MW, and
AL = actual load as a percentage of the base load.

vii. For simple cycle units without heat recovery, use the calculated hourly average emission rates from paragraph f. of this condition to assess excess emissions on a 4-hour rolling average basis, as described in 40 CFR §60.4380(b)(1).

viii. For combined cycle and combined heat and power units with heat recovery, use the calculated hourly average emission rates from paragraph f. of this condition to assess excess emissions on a 30 unit operating day rolling average basis, as described in 40 CFR §60.4380(b)(1).

[40 CFR §60.4350]

[45CSR16; 45CSR13, R13-3493, 4.1.2.i. and 4.1.3.i.]

15.2.5. **45CSR2 Visual Emission Monitoring.** At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with 15.1.2.g. Method 9 shall be conducted in accordance with 40 CFR 60, Appendix A.
[45CSR13, R13-3493, 4.2.7.]

15.2.6. **Control Devices.** The permittee shall meet the following monitoring, compliance demonstration, recording, and reporting requirements for the oxidation catalysts:

a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices to ensure functional and effective operation of each unit. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices by following the catalyst manufacturer emissions related operating and maintenance recommendations, or develop, implement, or follow a site-specific maintenance plan.

b. To demonstrate compliance with paragraph a. of this condition., the permittee shall maintain a copy of the site-specific maintenance plan or manufacturer maintenance plan.

[45CSR13, R13-3493, 4.2.8.]

15.2.7. **40 CFR 60, Subpart KKKK Requirements for SO_2 Monitoring.**

a. The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for units located in continental areas. The permittee must use one of the sources of information specified in paragraph a.1. of this condition to make the required demonstration:

1. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet.

[40 CFR §§60.4365 and 60.4365(a)]

b. The permittee must conduct an initial performance test, as required in 40 CFR §60.8. Subsequent SO_2 performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). There are four methodologies listed in 40 CFR §60.4415(a) that the permittee may use to conduct the performance tests.

1. The use of a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying the maximum total sulfur content of all fuels combusted in the affected facility.

[40 CFR §§60.4415(a) and (a)(1)]

[45CSR16; 45CSR13, R13-3493, 4.1.2.i. and 4.1.3.i.]

15.2.8. **CAM Compliance Demonstration for CO Emissions.** At all times that the turbines and/or duct burners are in operation, the catalyst bed inlet temperature shall be monitored via thermocouple. The thermocouple shall have a minimum accuracy within the range of ±0.01% to ±0.25% of the span. The temperature data shall be monitored and recorded every 24 hours of operation.

For the purposes of CAM, an excursion shall be defined as follows:

a. Prior to the initial performance test, an excursion occurs when the inlet temperature is outside of the manufacturer's recommended range. The permittee shall maintain a copy of the manufacturer's operation specifications for the oxidation catalysts in a form suitable and readily available for expeditious review. Maintenance of the specifications in an electronic format is acceptable.

b. Following the initial performance test, an excursion occurs when the inlet temperature is outside of the range established in the performance test.

[45CSR§30-5.1.c.; 40 CFR §64.6(c)]

15.2.9. **Commencement of Operation.** The owner or operator shall conduct the monitoring required under 40 CFR 64 upon issuance of a part 70 or 71 permit that includes such monitoring, or by such later date specified in the permit pursuant to 40 CFR §64.6(d).
[45CSR§30-5.1.c.; 40 CFR §64.7(a)]

15.2.10. **Proper Maintenance.** At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[45CSR§30-5.1.c; 40 CFR §64.7(b)]

15.2.11. **Continued Operation.** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[45CSR§30-5.1.c.; 40 CFR §64.7(c)]

15.2.12. **Response to Excursions or Exceedances.**

a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c.; 40 CFR §64.7(d)]

15.2.13. **Documentation of Need for Improved Monitoring.** After approval of monitoring under 40 CFR 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the 40 CFR 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[45CSR§30-5.1.c.; 40 CFR §64.7(e)]

15.2.14. **Quality Improvement Plan (QIP).** Based on the results of the determination made under Condition 15.2.12.b., the Administrator or the permitting authority may require the permittee to develop and implement a QIP. If required, the QIP shall be developed and implemented in accordance with 40 CFR §§64.8(b) through (e).
[45CSR§30-5.1.c.; 40 CFR §64.8]

15.3. Testing Requirements

15.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3. of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.
[45CSR13, R13-3493, 4.3.1.]

15.3.2. **Combustion Turbines/Duct Burners.** The permittee shall meet the following performance testing requirements with respect to the combustion turbines (CT):

a. The permittee shall, pursuant to the timing and other requirements of 40 CFR 60, Subpart KKKK, conduct, or have conducted, performance testing on each CT and Duct Burner to determine the emission rates of NO_X, during operation in non-startup/shutdown mode (as defined under 15.2.1.). The testing shall, in addition to meeting all applicable requirements under 40 CFR 60, Subpart KKKK, be in accordance with 3.3.1. Results of the performance testing shall, unless granted in writing a waiver by the Director, be used to determine compliance with the NO_X emission limits given under 15.1.1.e. and 15.1.2.d. After the initial test, subsequent NO_X performance testing shall be conducted annually (no more than 14 months following the previous test) unless the previous results demonstrate that the affected units achieved compliance of less than or equal to 75 percent of the applicable emission limits, then the permittee may reduce the frequency of subsequent tests to once every two years (no more than 26 calendar months following the previous test); and
[45CSR16; 40 CFR §60.4340(a)]

b. In addition to the required performance testing under 15.3.2.a., the permittee shall, within 60 days after achieving the maximum capacity each CT/Duct Burner combination will be operated, but not later than 180 days after initial startup, conduct, or have conducted, a performance test on each CT and Duct Burner to determine compliance with the emission limits of CO, during operation in non-startup/shutdown mode as defined 15.1.1.e. After the initial tests, subsequent performance testing on CO shall be conducted annually (no more than 14 months following the previous test) unless the previous results demonstrate that the affected units achieved compliance of less than or equal to 75 percent of the applicable emission limits, then the permittee may reduce the frequency of subsequent tests to once every two years (no more than 26 calendar months following the previous test). The permittee shall use the test methods specified in Table 15.3.2.b. unless granted approval in writing by the Director to use an alternative test method in a protocol submitted pursuant to 3.3.1.c.

Table 15.3.2.b.: Combustion Turbine Test Methods

Pollutant	Test Method[(1)]
CO	Method 10B

(1) All test methods refer to those given under 40 CFR 60, Appendix A.

For the purposes of CAM, an exceedance occurs when the performance test results demonstrate that the CO emissions from the oxidation catalyst surpass the CO concentration limits in Condition 15.1.4.a. of this operating permit.

[45CSR§30-5.1.c.; 40 CFR §64.6(c)]

[45CSR13, R13-3493, 4.3.2.]

15.3.3. **NO_X Performance Testing under 40 CFR 60, Subpart KKKK.**

a. The permittee must conduct an initial performance test, as required in 40 CFR §60.8. Subsequent NO_X performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).

1. There are two general methodologies that the permittee may use to conduct the performance tests. For each test run:

i. Measure the NO_X concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in Appendix A to 40 CFR 60. For units complying with the output-based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in Appendix A to 40 CFR 60, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_X emission rate:

$$E = \frac{1.194 \times 10^{-7} \times (NO_X)_c \times Q_{std}}{P}$$

Where:
E = NO_X emission rate, in lb/MWh
1.194×10^{-7} = conversion constant, in lb/dscf-ppm
$(NO_X)_c$ = average NO_X concentration for the run, in ppm
Q_{std} = stack gas volumetric flow rate, in dscf/hr
P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to 40 CFR §60.4350(f)(2); or

ii. Measure the NO_X and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in Appendix A of 40 CFR 60. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in Appendix A of 40 CFR 60 to calculate the NO_X emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in 40 CFR §60.4350(f) to calculate the NO_X emission rate in lb/MWh.

2. Sampling traverse points for NO_X and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe

designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

3. Notwithstanding paragraph a.2. of this condition, the permittee may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in Appendix A of 40 CFR 60 if the following conditions are met:

i. The permittee may perform a stratification test for NO_X and diluent pursuant to

a. The procedures specified in section 6.5.6.1(a) through (e) of Appendix A of 40 CFR 75.

ii. Once the stratification sampling is completed, the permittee may use the following alternative sample point selection criteria for the performance test:

a. If each of the individual traverse point NO_X concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5 ppm or ±0.5 percent CO_2 (or O_2) from the mean for all traverse points, then the permittee may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO_X concentration during the stratification test; or

b. For turbines with a NO_X standard greater than 15 ppm @ 15% O_2, the permittee may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_X concentrations is within ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3 ppm or ±0.3 percent CO_2 (or O_2) from the mean for all traverse points; or

c. For turbines with a NO_X standard less than or equal to 15 ppm @ 15% O_2, the permittee may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_X concentrations is within ±2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±1 ppm or ±0.15 percent CO_2 (or O_2) from the mean for all traverse points.

b. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. The permittee may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. The permittee must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.

1. If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.

2. For combined cycle and combined heat and power turbine systems with supplemental heat (duct burner), the permittee must measure the total NO_X emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test.

3. If water or steam injection is used to control NO_X with no additional post-combustion NO_X control and the permittee chooses to monitor the steam or water to fuel ratio in accordance with 40 CFR §60.4335, then that monitoring system must be operated concurrently with each EPA Method 20 or EPA Method 7E run and must be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable 40 CFR §60.4320 NO_X emission limit.

4. Compliance with the applicable emission limit in 40 CFR §60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO_X emission rate at each tested level meets the applicable emission limit in 40 CFR §60.4320.

5. If the permittee elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in 40 CFR §60.4405) as part of the initial performance test of the affected unit.

6. The ambient temperature must be greater than 0°F during the performance test.

[45CSR16; 40 CFR §60.4400; 45CSR13, R13-3493, 4.1.2.i. and 4.1.3.i.]

15.3.4. **Alternative Initial NO_X Performance Testing under 40 CFR 60, Subpart KKKK.** If a NO_X-diluent CEMS is installed and certified in accordance with 40 CFR §60.4345, then the initial performance test required under 40 CFR §60.8 may be performed in the following alternative manner:

a. Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within plus or minus 25 percent of 100 percent of peak load. The ambient temperature must be greater than 0°F during the RATA runs.

b. For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.

c. Use the test data both to demonstrate compliance with the applicable NO_X emission limit under 40 CFR §60.4320 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR §60.4335.

d. Compliance with the applicable emission limit in 40 CFR §60.4320 is achieved if the arithmetic average of all of the NO_X emission rates for the RATA runs, expressed in units of ppm or lb/MWh, does not exceed the emission limit.

[45CSR16; 40 CFR §60.4405; 45CSR13, R13-3493, 4.1.2.i. and 4.1.3.i.]

15.3.5. **Testing Requirements for the Duct Burners under 45CSR2.**

a. At such reasonable times as the Secretary may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of 15.1.2.g. Such tests shall be conducted in accordance with the appropriate method set forth in Appendix 45-2 to 45CSR2 or other equivalent EPA approved method approved by the Secretary. The Secretary may at his option witness or conduct such tests. Should the Secretary exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports 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.

1. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Secretary, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.

b. The Secretary may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in 45CSR§2-4.1.

[45CSR§§2-8.1.2., and -8.1.3.]

15.4. Recordkeeping Requirements

15.4.1. For the purpose of demonstrating compliance with any visible emissions monitoring required by the Director, the permittee shall maintain records 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). For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13, R13-3493, 4.4.2.]

15.4.2. **Recordkeeping Requirements for the Duct Burners under 45CSR2.**

a. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit as specified in paragraph a.1. of this condition. Such records are to be maintained on-site and made available to the Secretary upon request.

1. For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of startup and shutdown, and the quantity of fuel consumed on a monthly basis.

[45CSR§2-8.3.3.; 45CSR§§2A-7.1.a. and -7.1.a.1.]

15.4.3. **General Recordkeeping Requirements under CAM.**

a. The owner or operator shall comply with the recordkeeping requirements specified in 40 CFR §70.6(a)(3)(ii). The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[45CSR§30-5.1.c.; 40 CFR §64.9(b)]

15.5. Reporting Requirements

15.5.1. **Reporting Requirements for Duct Burners under 45CSR2**

The owner or operator of a fuel burning unit(s) subject to this rule shall report to the Secretary any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and -4 as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Secretary:

1. The excess opacity period does not exceed 30 minutes within any 24-hour period; and

2. Excess opacity does not exceed 40%.

b. The owner or operator shall report to the Secretary any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in paragraph a. of this condition, by telephone or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Secretary within 30 days providing the following information:

1. A detailed explanation of the factors involved or causes of the malfunction;

2. The date and time of duration (with starting and ending times) of the period of excess emissions;

3. An estimate of the mass of excess emissions discharged during the malfunction period;

4. The maximum opacity measured or observed during the malfunction;

5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and

6. A detailed explanation of the corrective measures or programs that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9.3.]

15.5.2. **40 CFR 60, Subpart KKKK Reporting Requirements**

a. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR 60, Subpart KKKK, the permittee must submit reports

of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions must be reported for all periods of unit operation, including startup, shutdown, and malfunction.
[40 CFR §60.4375(a)]

b. For each affected unit that performs annual performance tests in accordance with 40 CFR §60.4340(a), the permittee must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.
[40 CFR §60.4375(b)]

c. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

1. For turbines using continuous emission monitoring, as described in 40 CFR §60.4335(b) and §60.4345:

i. An excess emissions is any unit operating period in which the 4-hour or 30-day rolling average NO_X emission rate exceeds the applicable emission limit in 40 CFR §60.4320. For the purposes of 40 CFR 60, Subpart KKKK, a "4-hour rolling average NO_X emission rate" is the arithmetic average of the average NO_X emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_X emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_X emission rate is obtained for at least 3 of the 4 hours. For the purposes of 40 CFR 60, Subpart KKKK, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating hours.

ii. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_X concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the permittee will use this information for compliance purposes.

iii. For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

[40 CFR §60.4380(b)]

d. All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.
[40 CFR §60.4395]

[45CSR16; 45CSR13, R13-3493, 4.1.2.i. and 4.1.3.i.]

15.5.3. **General Reporting Requirements under CAM.**

a. On and after the date specified in 40 CFR §64.7(a) by which the owner or operator must use monitoring that meets the requirements of 40 CFR 64, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 CFR §70.6(a)(3)(iii).

b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under 40 CFR §70.6(a)(3)(iii) and the following information, as applicable:

1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

2. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

3. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[45CSR§30-5.1.c.; 40 CFR §64.9(a)]

15.6. Compliance Plan

15.6.1. None

16.0 NPP: Fuel Gas Heaters [emission unit ID(s): FH1 and FH2]

16.1. Limitations and Standards

16.1.1. **Fuel Gas Heaters**

The Fuel Gas Heaters, identified as FH1 and FH2, shall each not exceed an MDHI of 9.90 MMBtu/hr, and shall only be fired by pipeline-quality natural gas, ethane, or some combination thereof. The boilers shall operate in accordance with the following:

a. The maximum emissions from each Fuel Gas Heater shall not exceed the limits given in the following table:

Table 16.1.1.a.: Per-Fuel Gas Heater Emission Limits

Pollutant	lb/hr	ton/year
CO	0.82	3.57
NO_X	0.49	2.13
$PM_{2.5}/PM_{10}/PM$	0.07	0.32
SO_2	0.01	0.03
VOC	0.05	0.23

b. As the annual emission limits given under Table 16.1.1.a. are based on the Fuel Gas Heaters operating 8,760 hours per year, there are no annual restrictions on the fuel combusted or hours of operation for the units.

[45CSR13, R13-3493, 4.1.4.a. and c.]

16.1.2. **45CSR2 – Visible Emissions Monitoring**

a. 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 10 percent opacity based on a six-minute block average.
[45CSR13, R13-3493, 4.1.4.d.; 45CSR§2-3.1.]

b. Compliance with the visible emission requirements of 45CSR§2-3.1. shall be determined in accordance with 40 CFR 60, Appendix A, Method 9 and 45CSR16 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary 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 45CSR§2-3.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

16.2. Monitoring Requirements

16.2.1. **45CSR2 Visual Emission Monitoring.** At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with 16.1.2.a. Method 9 shall be conducted in accordance with 40 CFR 60, Appendix A.
[45CSR13, R13-3493, 4.2.7.]

16.3. Testing Requirements

16.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3. of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit and/or applicable regulations.
[45CSR13, R13-3493, 4.3.1.]

16.4. Recordkeeping Requirements

16.4.1. For the purpose of demonstrating compliance with any visible emissions monitoring required by the Director, the permittee shall maintain records 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). For an emission unit out of service during the evaluation, the record of observation may note “out of service” (O/S) or equivalent.
[45CSR13, R13-3493, 4.4.2.]

16.5. Reporting Requirements

16.5.1. None

16.6. Compliance Plan

16.6.1. None

17.0 NPP: Emergency Generator and Emergency Fire Pump Engine [emission unit ID(s): EG1 and FP1]

17.1. Limitations and Standards

17.1.1. **Emergency Generator and Emergency Fire Pump**

The Emergency Generator and Emergency Fire Pump, identified as EG1 and FP1, respectively, shall meet the following requirements:

a. The Emergency Generator shall not exceed 1,676 HP, shall be fired only with diesel fuel with a maximum sulfur content not to exceed 0.05%, and shall not operate in excess of 100 hours per year during times not defined as emergencies. The Emergency Fire Pump shall not exceed 700 HP, shall be fired only with diesel fuel with a maximum sulfur content not to exceed 0.05%, and shall not operate in excess of 100 hours per year during times not defined as emergencies.

b. The maximum emissions from the Emergency Generator shall not exceed the limits given in the following table:

Table 17.1.1.b.: Emergency Generator Emission Limits

Pollutant	lb/hr	ton/year
CO	12.13	0.61
NO_X	16.45	0.82
PM[(1)]	0.77	0.04
SO_2	3.43	0.17
VOCs	5.60	0.28
HAPs	0.01	0.01

(1) All particulate matter emissions are assumed to be $PM_{2.5}$ or smaller. Includes condensables.

c. The maximum emissions from the Emergency Fire Pump shall not exceed the limits given in the following table:

Table 17.1.1.c.: Emergency Fire Pump Emission Limits

Pollutant	lb/hr	ton/year
CO	5.07	0.25
NO_X	4.29	0.21
PM[(1)]	0.32	0.02
SO_2	1.44	0.07
VOCs	1.46	0.07
HAPs	0.01	0.01

(1) All particulate matter emissions are assumed to be $PM_{2.5}$ or smaller. Includes condensables.

d. **40 CFR 60, Subpart IIII Based Not-to-Exceed (NTE) Standards.** Pursuant to the language given under 40 CFR §60.4205(e), the Emergency Generator and the Emergency Fire Pump are subject to the following NTE Standards:

Table 17.1.1.d.: Subpart IIII NTE Standards

Engine Type	Emission Standards					
	NMHC + NO_X		CO		PM	
	g/kW-hr	g/HP-hr	g/kW-hr	g/HP-hr	g/kW-hr	g/HP-hr
Emergency Generator	8.0	6.0	4.4	3.3	0.25	0.19
Fire Pump	5.0	3.7	4.4	3.3	0.25	0.19

[45CSR13, R13-3493, 4.1.5.a. to d.]

17.1.2. **40 CFR 60, Subpart IIII**

The Emergency Generator and the Emergency Fire Pump are subject to all applicable requirements under 40 CFR 60, Subpart IIII, including the following:

a. **Emergency Generator (EG1).** Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 CFR §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

1. Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in 40 CFR §§60.4202(a)(1) through (2).

i. For engines with a rated power greater than or equal to 37 kW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR 1039, Appendix I, for all pollutants and the smoke standards as specified in 40 CFR §1039.105 beginning in model year 2007.

[40 CFR §§60.4202(a) and (a)(2)]

2. **Table 17.1.2.a.: Emergency Generator Emission Standards**

Engine	Table 2 to Appendix I of 40 CFR 1039 Tier 2 Emission Standards (g/kW-hr)		
	NO_X + NMHC	**CO**	**PM**
Emergency Generator Rated Power > 560 kW; Starting Model Year 2006	6.4	3.5	0.20

[Table 2 to Appendix I of 40 CFR 1039]

[40 CFR §60.4205(b)]

b. **Emergency Fire Pump (FP1).** Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to Subpart IIII of 40 CFR 60, for all pollutants.

Table 17.1.2.b.: Emergency Fire Pump (FP1) Emission Standards

Maximum Engine Power	Model Year(s)	Table 4 to Subpart IIII of 40 CFR 60 Emission Standards for Stationary Fire Pump Engines					
		NMHC + NO_X		**CO**		**PM**	
		g/kW-hr	g/HP-hr	g/kW-hr	g/HP-hr	g/kW-hr	g/HP-hr
450 ≤ kW ≤ 560 (600 ≤ HP ≤ 750)	2009+	4.0	3.0	3.5	2.6	0.20	0.15

[40 CFR §60.4205(c); Table 4 to Subpart IIII of 40 CFR 60]

c. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR §60.4205 over the entire life of the engine.
[40 CFR §60.4206]

d. Owners and operators of stationary CI ICE subject to 40 CFR 60, Subpart IIII with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR §1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
[40 CFR §60.4207(b)]

e. For an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, the permittee must install a non-resettable hour meter prior to startup of the engine.
[40 CFR §60.4209(a)]

f. For a stationary CI internal combustion engine subject to the emission standards in 40 CFR 60, Subpart IIII, the permittee must do all of the following, except as permitted under 40 CFR §60.4211(g):

1. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

2. Change only those emission-related settings that are permitted by the manufacturer; and

3. Meet the requirements of 40 CFR 1068, as applicable.

[40 CFR §60.4211(a)]

g. For the Emergency Generator and the Emergency Fire Pump, the permittee must comply by purchasing an engine certified to the emission standards in 40 CFR §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).
[40 CFR §60.4211(c)]

h. For an emergency stationary ICE, the permittee must operate the emergency stationary ICE according to the requirements in 40 CFR §§60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and must meet all requirements for non-emergency engines.

1. There is no time limit on the use of emergency stationary ICE in emergency situations.

2. The permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR §60.4211(f)(2).

i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

3. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR §60.4211(f)(2). Except as provided in 40 CFR §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a

facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

a. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

b. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

c. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

d. The power is provided only to the facility itself or to support the local transmission and distribution system.

e. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR §60.4211(f)]

[45CSR13, R13-3493, 4.1.5.e.; 45CSR16]

17.1.3. **40 CFR 63, Subpart ZZZZ**
An affected source that meets any of the criteria in 40 CFR §§63.6590(c)(1) through (7) must meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR 60, Subpart IIII, for compression ignition engines, or 40 CFR 60, Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63.
[45CSR13, R13-3493, 4.1.5.f.; 45CSR34; 40 CFR §§63.6590(c) and (c)(1)]

17.2. Monitoring Requirements

17.2.1. None

17.3. Testing Requirements

17.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3. of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit and/or applicable regulations.
[45CSR13, R13-3493, 4.3.1.]

17.3.2. **40 CFR 60, Subpart IIII – Testing Requirements**

a. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

1. For a stationary CI internal combustion engine with a maximum engine power 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 practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR §§60.4211(g) and (g)(3)]

b. Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to 40 CFR 60, Subpart IIII must do so according to 40 CFR §§60.4212(a) through (e).

1. The performance test must be conducted according to the in-use testing procedures in 40 CFR 1039, Subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR 1042, Subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in 40 CFR 1039, Appendix I, or with Tier 2 emission standards in 40 CFR 1042, Appendix I, may follow the testing procedures specified in 40 CFR §60.4213, as appropriate.

2. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR §1039.101(e) and 40 CFR §1039.102(g)(1), except as specified in 40 CFR §1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR 1039.

3. Exhaust emissions from stationary CI ICE subject to Tier 2 or Tier 3 emission standards as described in 40 CFR 1039, Appendix I, or Tier 2 emission standards as described in 40 CFR 1042, Appendix I, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:

$$NTE\ requirement\ for\ each\ pollutant = (1.25) \times (STD)$$

Where:
STD = The standard specified for that pollutant in 40 CFR 1039 or 1042, as applicable.

[40 CFR §§60.4212(a) to (c)]

[45CSR13, R13-3493, 4.1.5.e.; 45CSR16]

17.4. Recordkeeping Requirements

17.4.1. 40 CFR 60, Subpart IIII – Recordkeeping Requirements

a. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in Table 5 to Subpart IIII of 40 CFR 60, if the emergency engine does not meet the standards applicable to the non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

[45CSR13, R13-3493, 4.1.5.e.; 45CSR16; 40 CFR §60.4214(b)]

17.5. Reporting Requirements

17.5.1. 40 CFR 60, Subpart IIII – Reporting Requirements

a. For an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in 40 CFR §60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in 40 CFR §§60.4211(d)(1) through (3).

1. The report must contain the following information:

i. Company name and address where the engine is located.

ii. Date of the report and beginning and ending dates of the reporting period.

iii. Engine site rating and model year.

iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

v. Hours spent for operation for the purposes specified in 40 CFR §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR

§60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2. Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

3. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). However, if the reporting form specific to 40 C.F.R. 60, Subpart IIII is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR §60.4. Beginning on February 26, 2025, submit annual report electronically according to 40 CFR §60.4214(g).

[45CSR13, R13-3493, 4.1.5.e.; 45CSR16; 40 CFR §60.4214(d)]

17.6. Compliance Plan

17.6.1. None

18.0 NPP: Storage Tanks [emission unit ID(s): OT1 to OT8, AT1, WS1 to WS4, GT1 to GT4, FT1, and FT2]

18.1. Limitations and Standards

18.1.1. **Storage Tanks**
Tank size and material stored shall be limited as specified in the table titled "Natrium Power Plant" in Section 1.1. of this operating permit.
[45CSR13, R13-3493, 4.1.6.]

18.2. Monitoring Requirements

18.2.1. None

18.3. Testing Requirements

18.3.1. None

18.4. Recordkeeping Requirements

18.4.1. None

18.5. Reporting Requirements

18.5.1. None

18.6. Compliance Plan

18.6.1. None

19.0 NPP: Component Leaks

19.1. Limitations and Standards

19.1.1. **Component Leaks**
The permittee shall mitigate the release of fugitive emissions according to the following requirements:

a. The permittee shall, within 180 days of facility startup, submit a modification or Class II Administrative Update, as applicable pursuant to 45CSR13, to revise the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor service or light liquid service (as applicable) listed in Attachment N of Permit Application R13-3493 or any amendments or revisions submitted thereto if the as-built number of components results in calculated VOC or HAP emissions in excess of those given under Attachment N.

[45CSR13, R13-3493, 4.1.8.]

19.2. Monitoring Requirements

19.2.1. None

19.3. Testing Requirements

19.3.1. None

19.4. Recordkeeping Requirements

19.4.1. None

19.5. Reporting Requirements

19.5.1. None

19.6. Compliance Plan

19.6.1. None