West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Title V Operating Permit Revision

For Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number:	MM04 **SIC:** 1311
Name of Permittee:	MarkWest Liberty Midstream & Resources, L.L.C.
Facility Name/Location:	Majorsville Gas Plant
County:	Marshall
Permittee Mailing Address:	1515 Arapahoe Street, Tower 1, Suite 1600, Denver, CO 80202-2137
Description of Permit Revision:	This modification incorporates the revisions made in R13-2818M Class II Administrative Update which updates the flare maximum waste gas flow rate for source ID FL-1991 for an increase in operational flexibility.

Title V Permit Information:	
Permit Number:	R30-05100125-2019
Issued Date:	November 5, 2019
Effective Date:	November 19, 2019
Expiration Date:	November 5, 2024
Directions To Facility:	From Dallas, head south on Dallas Pike Road toward Dallas Street. Turn right onto Number 2 Ridge Road (1.4 mi), turn left onto Warton Hill Road (341 ft), take the first right to stay on Warton Hill Road (2.6 mi), turn right onto Calis Majorsville Road (0.2 mi), destination is on the right.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

Laura M. Crowder Laura M. Crowder Digitally signed by: Laura M. Crowder DN: CN = Laura M. Crowder email = Laura.M.Crowder@wv.gov C = US O = WV Department of Environmental Protection OU = Division of Air Quality Date: 2024.01.23 13:32:10 -05'00'

Laura M. Crowder
Director, Division of Air Quality

January 23, 2024
Date Issued

Permit Number: **R30-05100125-2019**
Permittee: **MarkWest Liberty Midstream & Resources, L.L.C.**
Facility Name: **Majorsville Gas Plant**
Permittee Mailing Address: **1515 Arapahoe Street, Tower 1, Suite 1600, Denver, CO 80202-2137**

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:	Dallas, Marshall County, West Virginia
Facility Mailing Address:	1700 Majorsville Road, Dallas, WV 26036
Telephone Number:	304-242-1341
Type of Business Entity:	LLC
Facility Description:	The plant removes liquids and hydrocarbons from natural gas
SIC Codes:	1311
UTM Coordinates:	540.95 km Easting • 4,423.83 km Northing • Zone 17

Permit Writer: Denton McDerment

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

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

Table of Contents

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

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device [1]
C-102	2E	Caterpillar G3608 Compressor Engine Natural gas-fired	2010	2,370 HP	Oxidation Catalyst
C-103	3E	Caterpillar G3608 Compressor Engine Natural gas-fired	2010	2,370 HP	Oxidation Catalyst
C-104	4E	Caterpillar G3608 Compressor Engine Natural gas-fired	2010	2,370 HP	Oxidation Catalyst
H-741	5E	Plant 1 Regenerator Heater	2010	5.60 MMBtu/hr	None
H-781	6E	Plant 1 & 2 HMO Heater	2010	15.40 MMBtu/hr	None
FL-991	1C	Flare	2010	4.118 mmscf/hr	1C
H-2741	9E	Plant 2 Regenerator Heater	2010	5.60 MMBtu/hr	None
H-3741	10E	Heater M III Regen Heater	2013	7.69 MMBtu/hr	None
H-4741	11E	Heater M IV Regen Heater	2013	7.69 MMBtu/hr	None
H-3781	12E	Heater M III HMO Heater	2013	16.07 MMBtu/hr	None
H-D1782	13E	DeEthanizer I HMO Heater	2013	119.2 MMBtu/hr	None
H-D1741	14E	DeEthanizer I Regen Heater	2013	14.80 MMBtu/hr	None
FL-1991	3C	Flare DeEth MIV, MVI, MVII	2012/2013	9.792 mmscf/hr	3C
H-5741	15E	Heater M V Regen Heater	2014	7.69 MMBtu/hr	None
H-6741	16E	Heater M VI Regen Heater	2014	7.69 MMBtu/hr	None
H-7741	17E	Heater M VII Regen Heater	2017	7.69 MMBtu/hr	None
H-4781	18E	Heater M IV HMO Heater	2014	16.07 MMBtu/hr	None
H-7781	19E	Heater M VII HMO Heater	2017	16.07 MMBtu/hr	None
H-4782	20E	Stabilization Heater	2014	11.72 MMBtu/hr	None
M1-G-1	21E	Majorsville 1 & 2 Emergency Generator Generac Model No. QT13068KNAC Natural gas-fired	2013	254 hp / 150 kW	None
M3-G-2	22E	Majorsville 3 Emergency Generator Cummins Model No. 60 DSF AD Diesel fuel-fired	2014	145 hp /108 kW	DPF

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device [1]
H-D2782	23E	DeEthanizer II HMO Heater	2017	119.2 MMBTU/hr	None
H-D2741	24E	DeEthanizer II Regen Heater	2017	14.80 MMBTU/hr	None
M3-G-3	25E	Majorsville 3 MCC Emergency Generator Cummins Model No. 60 DSF AD Diesel fuel-fired	2014	145 hp /108 kW	DPF
M4-G-6	26E	Majorsville 4 MCC Emergency Generator Cummins Model No. 60 DSF AD Diesel fuel-fired	2014	145 hp /108 kW	DPF
M4-G-7	27E	Majorsville 4 Emergency Generator Cummins Model No. 60 DSF AD Diesel fuel-fired	2014	145 hp /108 kW	DPF
M7-G-9	29E	Majorsville 7 MCC Emergency Generator Cummins Model No. C35D6 Diesel fuel-fired	2018	69 hp / 51.4 kW	DPF
MD1-G-4	30E	DeEthanizer 1 Control Room Emerg. Gen. Generac Model No. MMG45 Diesel fuel-fired	2013	63.7 hp / 47.5 kW	DPF
MD1-G-5	31E	DeEthanizer 1 Emergency Generator Generac Model No. MMG25 Diesel fuel-fired	2013	40.2 hp / 30 kW	DPF
MD2-G-10	32E	DeEthanizer 2 Control Room Emerg. Gen. Cummins Model No. C15D6 Diesel fuel-fired	2018	25 hp / 18.6 kW	DPF
MD2-G-11	33E	DeEthanizer 2 Emergency Generator Cummins Model No. C35D6 Diesel fuel-fired	2020	69 hp / 51.4 kW	DPF
MT-1	34E	Plant 1 Methanol Tank	2013	520 gal	None
MT-2	35E	Plant 2 Methanol Tank	2013	520 gal	None
MT-3	36E	Plant 3 Methanol Tank	2014	520 gal	None
MT-4	37E	Plant 4 Methanol Tank	2014	520 gal	None
MT-5	38E	Plant 5 Methanol Tank	2014	520 gal	None
MT-6	39E	Plant 6 Methanol Tank	2014	520 gal	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device [1]
MT-7	40E	Plant 7 Methanol Tank	2017	520 gal	None
GT-1	41E	Gasoline Dispensing Tank	2014	520 gal	None
DT-1	42E	Diesel Dispensing Tank	2014	520 gal	None
TK-1740	43E	Lube Oil Day Tank	2013	520 gal	None
UOT-1	44E	Used Oil Tank	2013	1,000 gal	None
TK-7411	45E	Lube Oil Tank	2013	2,133 gal	None
TK-7419	46E	Amine Tank	2013	4,200 gal	None
TK-7421	47E	Amine Tank	2013	1,547 gal	None
TK-4825	48E	Compressor Drain Tank	2014	2,326 gal	None
TK-4826	49E	Lube Oil Tank	2014	2,133 gal	None
TK-4824	50E	Closed Drain Tank	2014	4,200 gal	None
TK-4725	51E	Closed Drain Tank	2014	4,200 gal	None

[1] DPF – Diesel Particulate Filter

Facility Compressors

Compressor ID	Gas Service	Type	Date of Startup
C-161	Refrig	Screw	Not subject to OOOO/a
C-162	Refrig	Screw	Not subject to OOOO/a
C-2103	Residue	Reciprocating	6/22/2011
C-2104	Residue	Reciprocating	6/22/2011
C-2161	Refrig	Screw	Not subject to OOOO/a
C-2162	Refrig	Screw	Not subject to OOOO/a
C-3102	Residue	Reciprocating	4/28/2013
C-3103	Residue	Reciprocating	4/28/2013
C-3104	Residue	Reciprocating	4/28/2013
C-3105	Residue	Reciprocating	4/28/2013
C-3161	Refrig	Screw	Not subject to OOOO/a
C-3162	Refrig	Screw	Not subject to OOOO/a
C-3163	Refrig	Screw	Not subject to OOOO/a
C-4110	Inlet/Condensate	Reciprocating	5/19/2014
C-4111	Inlet/Condensate	Reciprocating	5/19/2014
C-4102	Residue	Reciprocating	5/19/2014
C-4103	Residue	Reciprocating	5/19/2014
C-4104	Residue	Reciprocating	5/19/2014
C-4105	Residue	Reciprocating	5/19/2014
C-4161	Refrig	Screw	Not subject to OOOO/a
C-4162	Refrig	Screw	Not subject to OOOO/a
C-4163	Refrig	Screw	Not subject to OOOO/a

Compressor ID	Gas Service	Type	Date of Startup
C-5102	Residue	Reciprocating	11/7/2013
C-5103	Residue	Reciprocating	11/7/2013
C-5104	Residue	Reciprocating	11/7/2013
C-5161	Refrig	Screw	Not subject to OOOO/a
C-5162	Refrig	Screw	Not subject to OOOO/a
C-5163	Refrig	Screw	Not subject to OOOO/a
C-6102	Residue	Reciprocating	6/9/2015
C-6103	Residue	Reciprocating	6/9/2015
C-6104	Residue	Reciprocating	6/9/2015
C-6161	Refrig	Screw	Not subject to OOOO/a
C-6162	Refrig	Screw	Not subject to OOOO/a
C-6163	Refrig	Screw	Not subject to OOOO/a
C-7102	Residue	Reciprocating	7/5/2018
C-7103	Residue	Reciprocating	7/5/2018
C-7104	Residue	Reciprocating	7/5/2018
C-7105	Residue	Reciprocating	7/5/2018
C-7161	Refrig	Screw	Not subject to OOOO/a
C-7162	Refrig	Screw	Not subject to OOOO/a
C-7163	Refrig	Screw	Not subject to OOOO/a
C-1101	Ethane	Reciprocating	12/14/2013
C-1102	Ethane	Reciprocating	12/14/2013
C-1103	Ethane	Reciprocating	12/14/2013
C-1161	Refrig	Screw	Not subject to OOOO/a
C-1162	Refrig	Screw	Not subject to OOOO/a
C-7117	CO_2	Reciprocating	12/14/2013
C-D2101	Ethane	Reciprocating	11/6/2017
C-D2102	Ethane	Reciprocating	11/6/2017
C-D2103	Ethane	Reciprocating	11/6/2017
C-D2161	Refrig	Screw	Not subject to OOOO/a
C-D2162	Refrig	Screw	Not subject to OOOO/a
C-D2163	Refrig	Screw	Not subject to OOOO/a
C-D2117	CO_2	Reciprocating	11/6/2017
C-110	Inlet/Condensate	Reciprocating	Not subject to OOOO/a
C-141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-121	Residue	Centrifugal	Dry seal not subject to OOOO/a
C-2141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-2110	Inlet/Condensate	Reciprocating	4/28/2013
C-3141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-4141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-5141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-6141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-7141	Inlet	Centrifugal	Dry seal not subject to OOOO/a
C-1141	Ethane	Centrifugal	Dry seal not subject to OOOO/a
C-D2141	Ethane	Centrifugal	Dry seal not subject to OOOO/a

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
R13-2818M ~~L~~	October 31, 2023 ~~July 11, 2022~~

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 ~~such~~ 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.~~12.~~). 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 ~~Emergency~~

~~2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.~~
~~**[45CSR§30-5.7.a.]**~~

~~2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology based emission limitations if the conditions of 45CSR§30-5.7.c. are met.~~
~~**[45CSR§30-5.7.b.]**~~

~~2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:~~

~~a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;~~

~~b. The permitted facility was at the time being properly operated;~~

~~c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and~~

~~d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.~~

~~**[45CSR§30-5.7.c.]**~~

~~2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.~~
~~**[45CSR§30-5.7.d.]**~~

~~2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.~~
~~**[45CSR§30-5.7.e.]**~~

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)(14)]**

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 or 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.
[45CSR13, R13-2818, 4.1.2.]

3.1.10. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-2818, 4.1.3.; 45CSR§13-5.10.]

3.1.11. **Maximum Throughput Limitation.** The total maximum combined wet natural gas throughput through the gas processing plants shall not exceed 1,500 mmscf/day. To demonstrate compliance, the permittee shall maintain records of the amount of natural gas processed in the gas processing plant.
[45CSR13, R13-2818, 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 (State-enforceable only)]

3.1.13. Only those emission units/sources as identified in Table 1.0, with the exception of any de minimis sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility.
[45CSR13, R13-2818, 4.1.6.]

3.2. Monitoring Requirements

3.2.1. Reserved.

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.

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)(14-15) 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, R13-2818, 4.1.1.]

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.]

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, R13-2818, 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.** ~~**Certified emissions statement.**~~ The permittee shall ~~submit a certified emissions statement and~~ pay fees on an annual basis in accordance with 45CSR§30-8. ~~the submittal requirements of the Division of Air Quality.~~
[45CSR§30-8.]

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

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.** ~~**Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.~~

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. ~~Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.~~

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 ~~telefax~~. 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. Reserved.

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. **45CSR40 – Control of Ozone Season Nitrogen Oxides Emissions**. This rule establishes ozone season NO_x emission limitations, MRR, NO_x reduction, and NO_x control standards. There are no NO_x Ozone Season units, as defined in 40CSR§40-2.26., present at the facility; therefore, this rule does not apply.

b. **40 C.F.R. 60 Subpart LLL – Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011**. The provisions of this subpart are applicable to the following affected facilities that process natural gas: each sweetening unit, and each sweetening unit followed by a sulfur recovery unit (40 C.F.R. §60.640(a)). There are no sweetening units, as defined in this subpart, present at the facility; therefore, this subpart does not apply.

c. **40 C.F.R. 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters**. This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP (40 C.F.R. §63.7480). The facility is not a major source of HAPs; therefore, this regulation is not applicable to any heater at the facility.

d. **40 C.F.R. 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources**. This subpart is applicable to each industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP). The facility is an area source of HAPs that operates heaters. All the heaters combust natural gas, and as such, are not subject to this regulation as provided in §63.11195(e). Based upon these facts, Subpart JJJJJJ is not applicable to the heaters H-741, H-781, H-2741, H-3741, H-4741, H-3781, H-D1782, H- D1741, H-5741, H-6741, H-7741, H-4781, H-7781, H-4782, H-D2782, and H-D2741.

e. **40 C.F.R. Part 64 Compliance Assurance Monitoring (CAM)**. Section 19 in the application general forms gives a non-applicability determination for 40 C.F.R. Part 64 CAM. According to 5/24/2019 technical correspondence from the permittee, each emission unit that emits to the flare FL-991 and FL-1991 have potential pre-control VOC emissions less than 100 tpy. Flare FL-991 controls four (4) sources (Maj-I, Maj-II, Maj-III, Maj-V) and pipeline blowdowns that vent to the flare in addition to the pilot sweep gas. This is an average of less than 40 tpy uncontrolled VOC per PSEU. Flare FL-1991 controls five (5) sources (Maj-IV, Maj-VI, Maj-VII, DeEth-I, DeEth-II) in addition to the pilot and sweep gas, which yields an average of approximately 60 tpy of uncontrolled VOC per PSEU. It is noted that Maj-I and Maj-II are designed to be 120 mmscf/d plants while III, IV, V, VI, VII are designed to be 200

mmscf/d, which helps explain why FL-1991 has a higher average uncontrolled VOC emission rate than FL-991 per PSEU and why each PSEU venting to FL-1991 is still below 100 tpy uncontrolled VOC. Since none of the PSEUs controlled by the flares FL-991 and FL-1991 meet the applicability criterion in 40 C.F.R. §64.2(a)(3), CAM is not applicable. The engines C-102, C-103, and C-104 are equipped with oxidation catalysts that (according to the application) control CO, VOC, and HCHO, for which there are non-exempt emission limitations in permit R13-2818L. However, pre-control potential emissions of these pollutants do not exceed the respective major source thresholds (cf. 40 C.F.R. §64.2(a)(3)). Therefore, CAM is not applicable to the engines C-102, C-103, and C-104. Diesel particulate filters are used on the compression ignition engines M3-G-2, M3-G-3, M4-G-6, M4-G-7, M7-G-9, MD1-G-4, MD1-G-5, MD2-G-11, and MD2-G-10. However, the engines are not subject to a non-exempt particulate matter emission limitation or standard (cf. 40 C.F.R. §64.2(a)(1)). Therefore, CAM is not applicable to the compression ignition engines.

4.0 Engines (C-102, C-103, C-104) and Emergency Generators (M1-G-1, M3-G-2, M3-G-3, M4-G-6, M4-G-7, M7-G-9, MD1-G-4, MD1-G-5, MD2-G-10, MD2-G-11) [emission point ID(s): 2E, 3E, 4E, 21E, 22E, 25E, 26E, 27E, 29E, 30E, 31E, 32E, 33E]

4.1. Limitations and Standards

4.1.1. The quantity of natural gas that shall be consumed in each of the 2,370 hp natural gas fired reciprocating engines, Caterpillar G3608 (C-102, C-103, C-104) shall not exceed 13,978 cubic feet per hour or 122.45 × 10^6 cubic feet per year.
[45CSR13, R13-2818, 5.1.1.]

4.1.2. Maximum emissions from each of the 2,370 hp natural gas fired reciprocating engines, Caterpillar G3608 (C-102, C-103, C-104) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
C-102 C-103 C-104	Nitrogen Oxides	2.61	11.44
	Carbon Monoxide	0.99	4.35
	Volatile Organic Compounds (includes Formaldehyde)	2.09	9.15
	Formaldehyde	0.42	1.83

[45CSR13, R13-2818, 5.1.2.]

4.1.3. Requirements for Use of Oxidation Catalysts

a. Lean-burn natural gas compressor engines (C-102, C-103, C-104) equipped with oxidation catalyst air pollution control devices shall be fitted with a closed-loop automatic air/fuel ratio feedback controller to ensure emissions of regulated pollutants do not exceed the emission limits listed in permit condition 4.1.2 for any engine/oxidation catalyst combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a lean-rich mixture.

b. For natural gas compressor engines (C-102, C-103, C-104), the permittee shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications; a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the permittee shall also check for thermal deactivation of the catalyst before normal operations are resumed.

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

d. No person shall knowingly:

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

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

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

[45CSR13, R13-2818, 5.1.3.]

4.1.4. Maximum emissions from each of the 145 hp diesel fired emergency generators, Cummins 60DSFAD (M3-G-2, M3-G-3, M4-G-6, M4-G-7) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.70	0.18
Carbon Monoxide	0.18	0.04

[45CSR13, R13-2818, 5.1.4.]

4.1.5. Maximum emissions from the 254 hp natural gas fired emergency generator, Generac V-type (M1-G-1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	1.12	0.28
Carbon Monoxide	1.68	0.42
Volatile Organic Compounds	0.56	0.14

[45CSR13, R13-2818, 5.1.5.]

4.1.6. Maximum emissions from each of the 63.7 hp diesel fired emergency generators, Generac MMG45 (MD1-G-4) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.49	0.12
Carbon Monoxide	0.52	0.13
Volatile Organic Compounds	0.49	0.12

[45CSR13, R13-2818, 5.1.6.]

4.1.7. Maximum emissions from each of the 40.2 hp diesel fired emergency generators, Generac MM25 (MD1-G-5) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.31	0.08
Carbon Monoxide	0.36	0.09
Volatile Organic Compounds	0.31	0.08

[45CSR13, R13-2818, 5.1.7.]

4.1.8. Maximum emissions from each of the 69 hp diesel fired emergency generators, Cummins C35 D6-4BT3.3-G5 (M7-G-9, MD2-G-11) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.46	0.11
Carbon Monoxide	0.23	0.06
Volatile Organic Compounds	0.46	0.11

[45CSR13, R13-2818, 5.1.8.]

4.1.9. Maximum emissions from the 25 hp diesel fired emergency generator, Cummins C15 D6 (MD2-G-10) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.19	0.05
Carbon Monoxide	0.02	0.01
Volatile Organic Compounds	0.01	0.01

[45CSR13, R13-2818, 5.1.9.]

4.1.10. **Maximum Yearly Operation Limitation**. The maximum yearly hours of operation for each of the emergency generators (M3-G-2, M3-G-3, M4-G-6, M4-G-7, M7-G-9, M1-G-1, MD1-G-4, MD2-G-10, MD1-G-5, MD2-G-11) shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.
[45CSR13, R13-2818, 5.1.8.]

4.2. Monitoring Requirements

4.2.1. Catalytic Oxidizer Control Devices

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

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

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

[45CSR13, R13-2818, 5.2.1.]

4.3. Testing Requirements

4.3.1. See Facility-Wide Testing Requirements Section 3.3 and Testing Requirements Sections 7.3 and 8.3. **[45CSR13, R13-2818, 5.3.1.]**

4.4. Recordkeeping Requirements

4.4.1. To demonstrate compliance with section 4.1, the permittee shall maintain records of the amount and type of fuel consumed in each engine and emergency generator and the hours of operation of each engine and emergency generator. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. **[45CSR13, R13-2818, 5.4.1.]**

4.5. Reporting Requirements

4.5.1. See Facility-Wide Reporting Requirements Section 3.5 and Reporting Requirements Sections 7.5 and 8.5. **[45CSR13, R13-2818, 5.5.1.]**

4.6. Compliance Plan

4.6.1. None.

5.0 Heaters [emission unit IDs: H-741, H-781, H-2741, H-3741, H-4741, H-3781, H-D1782, H-D1741, H-5741, H-6741, H-7741, H-4781, H-7781, H-4782, H-D2782, H-D2741; emission point IDs: 5E, 6E, 9E, 10E, 11E, 12E, 13E, 14E, 15E, 16E, 17E, 18E, 19E, 20E, 23E 24E]

5.1. Limitations and Standards

5.1.1. **Maximum Design Heat Input (MDHI)**. The MDHI for each of the process heaters shall not exceed the following:

Emission Unit ID#	Emission Point ID#	Process Heater Description	MDHI (MMBtu/hr)
H-741	5E	Plant 1 Regenerator Heater[1]	5.60
H-781	6E	Plant 1 & 2 HMO Heater[3]	15.40
H-2741	9E	Plant 2 Regenerator Heater[1]	5.60
H-3741	10E	M III Regen Heater[1]	7.69
H-4741	11E	M IV Regen Heater[1]	7.69
H-3781	12E	M III HMO Heater[3]	16.07
H-D1782	13E	DeEthanizer I HMO Heater[2]	119.2
H-D2782	23E	DeEthanizer II HMO Heater[2]	119.2
H-D1741	14E	DeEthanizer I Regen Heater[4]	14.80
H-D2741	24E	Deethanizer II Regen Heater[4]	14.80
H-5741	15E	M V Regen Heater[1]	7.69
H-6741	16E	M VI Regen Heater[1]	7.69
H-7741	17E	M VII Regen Heater[1]	7.69
H-4781	18E	M IV HMO Heater[3]	16.07
H-7781	19E	M VII HMO Heater[3]	16.07
H-4782	20E	Stabilization Heater[3]	11.72

1 – Unit is a process heater per 45CSR§2-2.26. The unit is not subject to 40CFR60 Subpart Db or Dc.
2 – Unit is a process heater per 45CSR§2-2.26. The unit is subject to 40CFR60 Subpart Db.
3 – Unit is a process heater per 45CSR§2-2.26. The unit is subject to 40CFR60 Subpart Dc.
4 – Unit is a process heater per 45CSR§2-2.26 and 40CFR §60.41c. The unit is not subject to 40CFR60 Subpart Dc.

Note: Compliance with the MDHIs in this condition while burning natural gas ensures compliance with the 30.9 lb/hr PM limit in 45CSR§2-4.1.b. and 1,064 lb/hr SO_2 limit in 45CSR§10-3.1.e. for the total design heat inputs of the following heaters that are rated 10 MMBtu/hr or greater: H-781, H-3781, H-D1782, H-D2782, H-D1741, H-D2741, H-4781, H-7781, H-4782.

[45CSR13, R13-2818, 6.1.1. and 6.1.3.b]

[45CSR§2-4.1.b.; 45CSR§10-3.1.e.] (H-781, H-3781, H-D1782, H-D2782, H-D1741, H-D2741, H-4781, H-7781, H-4782)

5.1.2. Maximum emissions from each of the process heaters shall not exceed the following limits:

Emission Unit ID#	NO_x		CO		VOC	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
H-741	0.30	1.32	0.46	2.02	0.03	0.13
H-781	1.34	5.85	1.27	5.56	0.08	0.36
H-2741	0.30	1.32	0.46	2.02	0.03	0.13
H-3741	0.41	1.80	0.32	1.38	0.04	0.18
H-4741	0.41	1.80	0.32	1.38	0.04	0.18
H-3781	1.61	7.04	1.32	5.80	0.09	0.38
H- D1782	4.77	20.88	4.77	20.88	0.64	2.82
H-D2782	4.77	20.88	4.77	20.88	0.64	2.82
H- D1741	0.59	2.59	0.61	2.66	0.28	1.23
H-D2741	0.59	2.59	0.61	2.66	0.28	1.23
H-5741	0.41	1.80	0.32	1.38	0.04	0.18
H-6741	0.41	1.80	0.32	1.38	0.04	0.18
H-7741	0.41	1.80	0.32	1.38	0.04	0.18
H-4781	1.61	7.04	1.32	5.80	0.09	0.38
H-7781	1.61	7.04	1.32	5.80	0.09	0.38
H-4782	0.69	3.01	0.96	4.23	0.06	0.28

[45CSR13, R13-2818, 6.1.2.]

5.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR13, R13-2818, 6.1.3.a; 45CSR§2-3.1.]

5.1.4. Heaters (H-781, H-3781, H-4781, H-7781, H-4782) 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 permit condition 3.5.3.
[45CSR13, R13-2818, 6.1.5]

5.1.5. NO_x emissions emitted to the atmosphere from each of the DeEthanizer HMO Heaters (H-D1782, H-D2782) shall not exceed 0.10 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly NO_x emission data for the preceding 30 steam generating unit operating days.

Note: MarkWest claimed a lower NOx limit based on manufacturer emissions data (NOx = 0.04 lb/mmBTU). NO_x = 0.04 lb/mmBTU x 119.2 mmBTU/hr = 4.77 lb/hr

[45CSR13, R13-2818, 6.1.6; 45CSR16; 40 CFR §§60.44b(a), (h), and (i)]]

5.1.6. The DeEthanizer HMO Heaters (H-D1782, H-D2782) is subject to all applicable provisions of 40 CFR 60, Subpart Db, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated. Testing shall be conducted in accordance with §60.46b. Recordkeeping and reporting requirements shall be conducted in accordance with §60.49b. These reports shall be submitted in accordance with the timelines and in the order set forth in §60.49b and submitted to the addresses listed in permit condition 3.5.3.
[45CSR13, R13-2818, 6.1.11]

5.1.7. The visible emission standards set forth in 45CSR§2-3.1. (condition 5.1.3.) shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR13, R13-2818, 6.1.3.c; 45CSR§2-9.1.] (H-781, H-3781, H-D1782, H-D2782, H-D1741, H-D2741, H-4781, H-7781, H-4782)

5.1.8. 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 Director 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-781, H-3781, H-D1782, H-D2782, H-D1741, H-D2741, H-4781, H-7781, H-4782)

5.1.9. Each steam generating unit at the facility subject to 40 C.F.R. 60, Subpart Db shall comply with 40 C.F.R. §60.40b-49b.
[45CSR13, R13-2818, 6.1.12] (H-D1782 and H-D2782)

5.1.10. To demonstrate compliance with the 0.10 lb/MMBTU limit, the permittee shall monitor steam generating unit operating conditions and predict NOx emission rates, on an annual basis, as specified in a plan submitted pursuant to 40 C.F.R. §60.49b(c).

a. As required by 40 C.F.R. §60.46b(j)(12), the permittee shall conduct an annual relative accuracy test audit (RATA) to confirm the PEMS model performance within 365 days of the most recent PEMS approval and once every four quarters as required by Performance Specification 16.
b. The permittee shall monitor the following PEMS parameters: Stack O_2, ambient dewpoint temperature, stack temperature.
c. Pursuant to Performance Specification 16 Section 6.1.4, the dewpoint (relative humidity) correlations may be extrapolated to values outside those experienced during testing.

[45CSR13, R13-2818, 6.1.13] (H-D1782 and H-D2782)

5.1.11. The permittee shall perform any additional testing to ensure PEMS parameter ranges are sufficient for this emission unit by no later than 365 days after 01/08/2019. If the permittee conducts additional testing, the permittee shall conduct a RATA, by no later than 730 days after 01/08/2019, to confirm PEMS model performance as required by Performance Specification 16. The permittee shall submit the results of any additional testing conducted, including expanded PEMS parameter ranges or modified PEMS models in the next Annual PEMS Report.
[45CSR13, R13-2818, 6.1.14] (H-D1782 and H-D2782)

5.1.12. If major operational changes occur, or in the case of a failed RATA, the permittee shall retest the emission unit within 60 days at new or changed parameters following the procedure outlined in Performance Specification 16.
[45CSR13, R13-2818, 6.1.15] (H-D1782 and H-D2782)

5.1.13. All PEMS model development or parameter updating and resulting RATA testing conducted shall follow the procedures set forth in Performance Specification 16, and the following general procedures, as applicable:

a. Collect data. Collect NOx and O_2 emission data over the desired range of the operating parameter of interest. In accordance with EPA Reference Method 7E Section 8.5, the permittee may use an appropriate time interval between the bias or calibration checks completed during testing. As

specified in Method 7E, if the post-test bias check fails, data is invalid from the time of the last successful bias check to the time of the next successful bias check. In accordance with Method 7E Section 8.5(2), each post-test bias check may serve as the pre-test bias check for the next period of data collection. When the analyzers are operated in the manner described in this permit, an initial RATA is not required since the reference method itself is being used. In accordance with Method 7E Section 8.4(3), a multi-hole probe may be used with the analyzer system to meet the sampling point requirements of Method 7E.

b. Divide the data. Once all the data are collected, such data shall be divided into two groups: Group 1 data is used to build or modify the model; and Group 2 data is used to validate the model. Once the model is built or modified, the Group 2 data, which consists of valid EPA reference method (Method 7E) runs, is used to conduct a RATA on the new or modified model.

c. Validate model. Once an acceptable model has been developed using the Group 1 data, the model shall be validated with a RATA in accordance with Performance Specification 16 Section 8.2. The Group 2 data collected earlier may be used for the reference method runs for model validation. Model validation procedures in Performance Specification 16 for an excess emission PEMS shall be used. In no case shall Group 1 data used to build or modify the model also be used to validate the model.

[45CSR13, R13-2818, 6.1.16] (H-D1782 and H-D2782)

5.1.14. The permittee shall calculate a 30-day rolling average from average daily NOx emissions calculated by PEMS on an hourly basis.
[45CSR13, R13-2818, 6.1.17] (H-D1782 and H-D2782)

5.1.15. Each daily NOx average must have 75% of the hourly average PEMS parameters within the specified ranges for the daily average to be considered valid. The 30 day averaging period must also have a minimum of 22 days per period.
[45CSR13, R13-2818, 6.1.18] (H-D1782 and H-D2782)

5.1.16. Each steam generating unit at the facility subject to 40CFR60 Subpart Dc shall comply with 40 C.F.R. §60.40c-48c.
[45CSR13, R13-2818, 6.1.19] (H-781, H-3781, H-4781, H-7781, H-4782)

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 5.1.3. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.
[45CSR13, R13-2818, 6.2.1.]

5.2.2. For each month, the permittee shall record the hours of operation and amount of fuel gas consumed by heaters listed in permit condition 5.1.1. Such records shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR13, R13-2818, 6.2.2.]
[40 C.F.R. §60.48c(g)(2); 45CSR16] (H-781, H-3781, H-4781, H-7781, H-4782)
[45CSR§2-8.3.c.; 45CSR§2A-7.1.a.1.] (H-781, H-3781, H-D1782, H-D2782, H-D1741, H-D2741, H-4781, H-7781, H-4782)

5.2.3. 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 monitor steam generating unit operating conditions and predict NO_X emission rates as specified in a plan submitted pursuant to §60.49b(c).
[40 C.F.R. §§60.48b(g) and (g)(2); 45CSR16] (H-D1782, H-D2782)

5.2.4. 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 this part, Method 7A of appendix A of this part, 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.
[45CSR13, R13-2818, 6.1.7; 40 CFR §60.48b(f)] (H-D1782 and H-D2782)

5.2.5. The permittee shall use a predictive emission monitoring system (PEMS) as an alternative monitoring system in lieu of CEMS for the DeEthanizer HMO Heaters (H-D1782, H-D2782). Such PEMS must meet the Performance Specification (PS) 16 of Appendix B-Performance Specifications, which consist of passing an initial and follow-up relative accuracy test and conducting periodic quality assurance (QA) assessments.
[45CSR13, R13-2818, 6.1.10]

5.3. Testing Requirements

5.3.1. Compliance with the visible emission requirements of section 5.1.3 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 5.1.3. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR13, R13-2818, 6.3.1.; 45CSR§2-3.2.]

5.3.2. To determine initial compliance with the emission limits for NO_x required under 40 CFR §60.44b and permit conditions 5.1.2 and 5.1.5., the permittee shall conduct the performance test for the DeEthanizer HMO Heaters (H-D1782, H-D2782) as required under 40 CFR §60.8 using the continuous system for monitoring NOx (NOx CEMS). Such testing shall be conducted within 60 days after achieving the maximum production rate at which the affected unit will be operated, but not later than 180 days after initial startup of the boiler.

NO_x emissions from the steam generating unit are to be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_x emission standards under 40 CFR §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. Such testing shall be conducted in accordance with permit condition 3.3.1. and 40 CFR §60.46b. Records of this testing shall be maintained in accordance with permit condition 3.4.2 .

Following the date on which the initial performance test is completed or required to be completed under §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 §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 §60.48b(g)(1) or §60.48b(g)(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.

[45CSR13, R13-2818, 6.1.8; 45CSR16; 40 CFR §60.8, §§60.46b(c) & (e)(1) and (4)]

5.3.3. The permittee must conduct and pass a performance evaluation of the CEMS or PEMS according to the procedures under 40 CFR §60.13. within 180 days after initial startup of the DeEthanizer HMO Heaters (H-D1782, H-D2782).
[45CSR13, R13-2818, 6.1.9]

5.4. Recordkeeping Requirements

5.4.1. To demonstrate compliance with permit conditions 5.1.1, 5.1.2, 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, R13-2818, 6.4.1.]

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, R13-2818, 6.4.2.]

5.4.3. The owner or operator of each affected facility subject to the NO_X standard in §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in §60.48b(g)(2) and the records to be maintained in §60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. An affected facility burning coke oven gas alone or in combination with other gaseous fuels or distillate oil shall submit this plan to the Administrator for approval within 360 days of the initial startup of the affected facility or by November 30, 2009, whichever date comes later. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_X emission rates (*i.e.*, ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (*i.e.*, the ratio of primary air to secondary and/or tertiary air) and the level of excess air (*i.e.*, flue gas O_2 level);

(2) Include the data and information that the owner or operator used to identify the relationship between NO_X emission rates and these operating conditions; and

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the

affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(g).

[40 C.F.R. §60.49b(c); 45CSR16] (H-D1782, H-D2782)

5.4.4. a. The permittee shall monitor and record the amount of natural gas combusted by the heaters (H-D1782, H-D2782) during each calendar month. Such records shall be maintained in accordance with permit condition 3.4.2.
[45 CSR §2-8.3.c., and 40 CFR §60.49b(d)(2)]

b. As an alternative to meeting the requirements of paragraph (g)(1) of 40 CFR §60.48c, the permittee shall record and maintain records of the total amount of natural gas delivered to that property during each calendar month for heaters (H-781, H-3781, H-4781, H-7781, H-4782). Such records shall be maintained in accordance with permit condition 3.4.2.
[45 CSR §2-8.3.c., and 40 CFR §60.48c(g)(3)]

[45CSR13, R13-2818, 6.1.4; 45CSR16]

5.4.5. The owner or operator of an affected facility subject to the NO_X standards under §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;

[40 C.F.R. §§60.49b(g), (g)(1) through (g)(7); 45CSR16] (H-D1782, H-D2782)

5.4.6. All records required under 40 C.F.R. §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.
[40 C.F.R. §§60.49b(o); 45CSR16] (H-D1782, H-D2782)

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 Part 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, R13-2818, 6.5.1.]

5.5.2. The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions that occurred during the reporting period

(2) Any affected facility that is subject to the NO_X standard of §60.44b, and that:

(i) Combusts natural gas, distillate oil, gasified coal, or residual oil with a nitrogen content of 0.3 weight percent or less; or

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO_X emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

[40 C.F.R. §§60.49b(h), (h)(2), and (h)(2)(i) through (h)(2)(ii); 45CSR16] (H-D1782, H-D2782)

5.5.3. The owner or operator of any affected facility subject to the continuous monitoring requirements for NO_X under §60.48b shall submit reports containing the information recorded under paragraph (g) of §60.49b (permit condition 5.4.5.).
[40 C.F.R. §60.49b(i); 45CSR16] (H-D1782, H-D2782).

5.5.4. The owner or operator of an affected facility may submit electronic quarterly reports for NO_X in lieu of submitting the written reports required under paragraphs (h) and (i) of §60.49b. 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 this subpart 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.
[40 C.F.R. §60.49b(v); 45CSR16] (H-D1782, H-D2782)

5.5.5. The reporting period for the reports required under 40 C.F.R. 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.
[40 C.F.R. §60.49b(w); 45CSR16] (H-D1782, H-D2782)

5.5.6. The permittee shall submit initial notifications for all 40 C.F.R. 60 Subpart Db heaters pursuant to 40 C.F.R. §60.49b(a).
[45CSR13, R13-2818, 6.5.2] (H-D1782 and H-D2782)

5.5.7. The permittee shall submit initial notifications for all 40 C.F.R. 60 Subpart Dc heaters pursuant to 40 C.F.R. §60.48c.
[45CSR13, R13-2818, 6.5.3] (H-781, H-3781, H-4781, H-7781, H-4782)

5.6. Compliance Plan

5.6.1. Reserved.

6.0 Flares [emission unit IDs: FL-991, FL-1991; emission point IDs: 1C, 3C]

6.1. Limitations and Standards

6.1.1. The closed vent system that is used to route any pressure relief devices in VOC service at the facility that is either routed to control device flares (FL-991, FL-1991) or back to a process shall be installed, maintained and operated in accordance with the following requirements:

a. The closed vent system shall be constructed of hard piping;
[40 CFR §60.5400(a), §60.482-11a(f)(1); 45CSR16]

b. The closed vent system shall be free of leaks. A leaking component is defined as a measured instrument reading greater than 500 ppm above background or by visual inspection.
[40 CFR §60.5400(a), §60.482-11a(g); 45CSR16]

c. Detected leaks shall be repaired as soon as practicable with the first attempt at repair shall be made within 5 calendar days after detecting the leak. Repair shall be completed no later than 15 calendar days after the leak is detected.
[40 CFR §60.5400(a), §§60.482-11a(g)(1) & (g)(2); 45CSR16]

d. Delay of repair (DOR) of the closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process shutdown or if the permittee determines that emissions resulting from the immediate repair would be greater than the fugitive emissions likely to result from the DOR. Repair of such equipment shall be complete by the end of the next process shutdown.
[40 CFR §60.5400(a), §60.482-11a(h); 45CSR16]

e. If the permittee determines any parts of the closed vent system as unsafe to monitor by exposing the monitoring personnel to an imminent or potential danger, the permittee shall develop and implement a plan that allows for the monitoring of such components during safe-to-inspect times.

f. Any parts of the closed vent system that are designated, as described in 40 CFR §60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR §§60.482-10a(f)(1)(i) and (f)(2) if the permittee complies with the requirements specified in the following:

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

ii. The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the permittee designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

iii. The permittee shall develop a written plan that requires inspection of difficult to inspect equipment at least once every 5 years.

g. Closed vent systems and control devices used to comply with provisions of Subpart OOOO to Part 60 shall be operated at all times when emissions may be vented to them.
[40 CFR §60.482-10a & §60.5400(a); 45CSR16]

[45CSR13, R13-2818, 7.1.1.]

6.1.2. Flares subject to this section shall be designed and operated in accordance with the following:

a. Flares FL-991 & FL-1991 shall be air-assisted.

b. Flares FL-991 & FL-1991 shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. *Note: The opacity during the 5 minutes during any 2 consecutive hours is limited by the requirements in conditions 6.1.5. and 6.1.6.*

c. Flares FL-991 & FL-1991 shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.

d. A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flares are non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740\times10^{-7}\left(\frac{1}{ppmv}\right)\left(\frac{\text{g-mole}}{\text{scm}}\right)\left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 if published values are not available or cannot be calculated.

n = Number of sample components.

e. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$$V_{max} = 8.71 + 0.708(H_T)$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T=The net heating value as determined in 6.1.2.d of this section.

[45CSR13, R13-2818, 7.1.2.]

6.1.3. The permittee is not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2) until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 6.3.2, but the permittee is required to conduct a flare design evaluation in accordance with section 6.4.2. Alternatively, the permittee may elect to demonstrate compliance with the flare design criteria requirements of section 6.1.2 by complying with the compliance assessment testing requirements of section 6.3.2.
[45CSR13, R13-2818, 7.1.3.]

6.1.4. Maximum emissions from the flares (FL-991 & FL-1991) shall not exceed the following limits:

Emission Unit ID#	NO_x	CO	VOC
	Maximum annual emissions (tpy)	**Maximum annual emissions (tpy)**	**Maximum annual emissions (tpy)**
FL-991	2.48	10.51	6.38
FL-1991	5.00 ~~2.82~~	22.10 ~~12.15~~	13.55 ~~7.42~~

[45CSR13, R13-2818, 7.1.4.]

6.1.5. Visible particulate matter emissions from the flares (FL-991 & FL-1991) shall not exceed twenty (20%) percent opacity. *Note: Compliance with the no visible emissions requirement in condition 6.1.2.b. ensures compliance with this opacity standard, except for the 5 minutes during any 2 consecutive hours.*
[45CSR13, R13-2818, 7.1.5.; 45CSR§6-4.3.]

6.1.6. The provisions of permit condition 6.1.5 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up. *Note: Compliance with the no visible emissions requirement in condition 6.1.2.b. ensures compliance with this opacity standard, except for the 5 minutes during any 2 consecutive hours.*
[45CSR13, R13-2818, 7.1.6.; 45CSR§6-4.4.]

6.1.7. The flares (FL-991 & FL-1991) including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR13, R13-2818, 7.1.7.; 45CSR§6-4.6.]

6.1.8. No person shall cause or allow 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 × Incinerator Capacity (tons/hr)

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions.

	Incinerator Capacity	Factor F
A.	Less than 15,000 lbs/hr	5.43
B.	15,000 lbs/hr or greater	2.72

For FL-991:
Emissions (lb/hr) = F × Incinerator Capacity (tons/hr)
= (2.72) × (73,000 lb/hr) / (2,000 lb/ton)
= 99.3 lb/hr

For FL-1991:
Emissions (lb/hr) = F × Incinerator Capacity (tons/hr)
= (2.72) × (684,400 lb/hr) / (2,000 lb/ton)
= 931 lb/hr

[45CSR13, R13-2818, 7.1.8.; 45CSR§6-4.1.]

6.1.9. Maximum pilot light fuel consumption for flares FL-991 & FL-1991 shall not exceed 8.34 scfm for FL-991 and 6.95 scfm for FL-1991. Compliance with this requirement demonstrates compliance with the emission limits of 6.1.4 of this permit.
[45CSR13, R13-2818, 7.1.9.]

6.1.10. The maximum waste/purge gas flow rate shall not exceed 50.34 MMscf per year for FL-991 and 107.00 ~~58.52~~ MMscf per year for FL-1991.
[45CSR13, R13-2818, 7.1.10.]

6.1.11. The permittee will comply with the requirements of Section 2.17 of this permit during emergency operation of the flares (FL-991 & FL-1991).
[45CSR13, R13-2818, 7.1.11.]

6.2. Monitoring Requirements

6.2.1. In order to demonstrate compliance with the requirements of 6.1.2.c, the permittee shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.
[45CSR13, R13-2818, 7.2.1.]

6.2.2. The permittee shall monitor the throughput of wet natural gas fed to each flare control device (FL-991 & FL-1991) on a monthly basis.
[45CSR13, R13-2818, 7.2.2.]

6.3. Testing Requirements

6.3.1. In order to demonstrate compliance with the flare opacity requirements the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance (*R13-2818 issued 2/17/2010 for FL-991; R13-2818D issued 1/17/2013 for FL-1991*) or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.
[45CSR13, R13-2818, 7.3.1.]

6.3.2. The Director may require the permittee to conduct a flare compliance assessment. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the permittee to conduct Test Method 4 in conjunction with Test Method 18.
[45CSR13, R13-2818, 7.3.2.]

6.4. Recordkeeping Requirements

6.4.1. For the purpose of demonstrating compliance with section 6.1.2.c and 6.2.1, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.
[45CSR13, R13-2818, 7.4.1.]

6.4.2. For the purpose of demonstrating compliance with section 6.1.2 and 6.3.2, the permittee shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.
[45CSR13, R13-2818, 7.4.2.]

6.4.3. The permittee shall document and maintain the corresponding records specified by the on-going monitoring requirements of 6.2 and testing requirements of 6.3.
[45CSR13, R13-2818, 7.4.3.]

6.4.4. For the purpose of demonstrating compliance with section 6.1.2.b, the permittee shall maintain records of the visible emission opacity tests conducted per Section 6.3.1.
[45CSR13, R13-2818, 7.4.4.]

6.4.5. All records required under Section 6.4 shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13, R13-2818, 7.4.5.]

6.4.6. The permittee shall maintain a monthly record of the wet natural gas throughput for each flare control device (FL-991 & FL-1991). Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13, R13-2818, 7.4.6.]

6.5. Reporting Requirements

6.5.1. If permittee is required by the Director to demonstrate compliance with section 6.1.1, 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, R13-2818, 7.5.1.]

6.5.2. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 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, R13-2818, 7.5.2.]

6.5.3. Any deviation(s) from the flare design and operation criteria in Section 6.1.2 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 discovery of such deviation.
[45CSR13, R13-2818, 7.5.3.]

6.5.4. The permittee shall report to the Director, the time, cause of event, estimate of emissions and corrective actions taken when the flare was used for an emergency at the facility.
[45CSR13, R13-2818, 7.5.4.]

6.6. Compliance Plan

6.6.1. Reserved.

7.0 40 C.F.R. 60 Subpart JJJJ and 40 C.F.R. 63 Subpart ZZZZ Requirements [emission unit IDs: C-102, C-103, C-104, M1-G-1; emission point ID(s): 2E, 3E, 4E, 21E]

7.1. Limitations and Standards

7.1.1. The provisions of this subpart are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

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

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

2. on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

3. on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

4. on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

b. Owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006.

[45CSR13, R13-2818, 8.1.1.; 40 C.F.R. §§60.4230(a), (a)(4), and (a)(5); 45CSR16]

7.1.2. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

Table 1 to Subpart JJJJ – Emission Standards[a] for Compressor Engines C-102, C-103, C-104, and Emergency Generator M1-G-1

g/HP-hr			ppmvd at 15% O_2		
NO_x	CO	VOC	NO_x	CO	VOC
2.0	4.0	1.0	160	540	86

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

[45CSR13, R13-2818, 8.2.1.; 40 C.F.R. §60.4233(e) and Rows 5 and 14 of Table 1 to Subpart JJJJ; 45CSR16] (C-102, C-103, C-104, M1-G-1)

7.1.3. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.
[45CSR13, R13-2818, 8.2.3.; 40 C.F.R. §60.4234; 45CSR16] (C-102, C-103, C-104, M1-G-1)

7.1.4. Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a nonresettable hour meter.
[45CSR13, R13-2818, 8.2.4.; 40 C.F.R. §60.4237(b); 45CSR16] (M1-G-1)

7.1.5. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs a. and b. of this condition.

a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs b.1. and b.2. of this condition.

1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you 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, you must conduct an initial performance test to demonstrate compliance.

2. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you 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, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

Note: The engines C-102, C-103, C-104, and M1-G-1 are non-certified.

[45CSR13, R13-2818, 8.3.1.; 40 C.F.R. §60.4243(b); 45CSR16] (C-102, C-103, C-104, M1-G-1)

7.1.6. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of this condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under this subpart 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) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (2)(a) through (c) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).

(a) 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.

(b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(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 and emergency demand response provided in paragraph (2) of this condition. Except as provided in paragraph (3)(a) of this condition, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(a) 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.

[45CSR13, R13-2818, 8.3.4.; 40 C.F.R. §60.4243(d); 45CSR16] (M1-G-1)

7.1.7. **40 C.F.R. 63 Subpart ZZZZ Requirements**.

(1) The permittee must comply with the applicable operating limitations in 40 C.F.R. 63 Subpart ZZZZ no later than October 19, 2013.

(2) *Stationary RICE subject to Regulations under 40 CFR Part 60*. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of §63.6590 must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under part 60.

The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of this part by meeting the requirements of 40 C.F.R. part 60 subpart JJJJ listed in Section 7.0 of this permit.

[45CSR13, R13-2818, 10.1.1. and 10.1.2.; 40 C.F.R. §63.6595(a); 40 C.F.R. §§ 63.6590(c) and (c)(1); 45CSR34]

7.2. Monitoring Requirements

7.2.1. Reserved.

7.3. Testing Requirements

7.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.
[40 C.F.R. §60.4244(a)]

b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
[40 C.F.R. §60.4244(b)]

c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
[40 C.F.R. §60.4244(c)]

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

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

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d= Measured NO_X concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

[40 C.F.R. §60.4244(d)]

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

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

Where:

ER = Emission rate of CO in g/HP-hr.

C_d= Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40 C.F.R. §60.4244(e)]

f. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

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

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d= VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40 C.F.R. §60.4244(f)]

g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad \text{(Eq. 4)}$$

Where:

RF_i= Response factor of compound i when measured with EPA Method 25A.

C_{Mi}= Measured concentration of compound i in ppmv as carbon.

C_{Ai}= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \qquad \text{(Eq. 5)}$$

Where:

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

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

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

Where:

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

[40 C.F.R. §60.4244(g)]

[45CSR13, R13-2818, 8.4.1.; 45CSR16]

7.3.2. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 C.F.R. §94.11(a).
[**40 C.F.R. §60.4243(f); 45CSR16] (M1-G-1)**

7.4. Recordkeeping Requirements

7.4.1. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs 1. through 4. of this condition.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.

2. Maintenance conducted on the engine.

3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.

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

[45CSR13, R13-2818, 8.5.1.a.; 40 C.F.R. §60.4245(a); 45CSR16]

7.4.2. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
[45CSR13, R13-2818, 8.5.1.b.; 40 C.F.R. §60.4245(b); 45CSR16] (M1-G-1)

7.5. Reporting Requirements

7.5.1. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs 1. through 5. of this condition.

1. Name and address of the owner or operator;
2. The address of the affected source;
3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
4. Emission control equipment; and
5. Fuel used.

[45CSR13, R13-2818, 8.5.1.c.; 40 C.F.R. §60.4245(c); 45CSR16] (C-102, C-103, C-104)

7.5.2. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.
[45CSR13, R13-2818, 8.5.1.d.; 40 C.F.R. §60.4245(d); 45CSR16]

7.6. Compliance Plan

7.6.1. Reserved.

8.0 40 C.F.R. 60 Subpart IIII and 40 C.F.R. 63 Subpart ZZZZ Requirements [emission unit IDs: M3-G-2, M3-G-3, M4-G-6, M4-G-7, M7-G-9, MD1-G-4, MD1-G-5, MD2-G-10, MD2-G-11; emission point ID(s): 22E, 25E, 26E, 27E, 29E, 30E, 31E, 32E, 33E]

8.1. Limitations and Standards

8.1.1. **Emission Standards**. 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 §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.

a. For engines with a maximum engine power less than 37 KW (50 HP), the certification emission standards specified in §60.4202(a)(1)(ii) and Table 2 to Subpart IIII, for 2008 model year and later engines. Emissions from emergency generator engine MD1-G-5 shall not exceed the following for each engine:

NOx+NMHC (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
7.5	5.5	0.30

[40 C.F.R. §60.4205(b); 40 C.F.R. §60.4202(a)(1)(ii) and Table 2 to Subpart IIII; 45CSR16]

b. Emissions from emergency generator engine MD2-G-10 shall not exceed the following:

NOx+NMHC (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
7.5	5.5	0.30

[40 C.F.R. §60.4205(b); 40 C.F.R. §60.4202(a)(1)(ii) and Table 2 to Subpart IIII; 45CSR16]

c. Emissions from emergency generator engines M7-G-9, MD2-G-11, and MD1-G-4 shall not exceed the following for each engine:

NOx+NMHC (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
4.7	5.0	0.4

[40 C.F.R. §60.4205(b); 40 C.F.R. §60.4202(a)(2); 40 C.F.R. part 1039 and appendix I, Table 3; 45CSR16]

d. Emissions from emergency generator engines M3-G-2, M3-G-3, M4-G-6, and M4-G-7 shall not exceed the following for each engine:

NOx+NMHC (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
4.0	5.0	0.30

[40 C.F.R. §60.4205(b); 40 C.F.R. §60.4202(a)(2); 40 C.F.R. part 1039 and appendix I, Table 3; 45CSR16]

[45CSR13, R13-2818, 9.1.1.; 40 C.F.R. §60.4205(b); 45CSR16]

8.1.2. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §60.4205 over the entire life of the engine.
[45CSR13, R13-2818, 9.1.2.; 40 C.F.R. §60.4206; 45CSR16]

8.1.3. **Fuel Requirements**. Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart 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 §80.510(b) for nonroad diesel fuel.

(4) Sulfur content. 15 ppm maximum for NR diesel fuel.

(5) Cetane index or aromatic content, as follows:

(a) A minimum cetane index of 40; or

(b) A maximum aromatic content of 35 volume percent.

[45CSR13, R13-2818, 9.1.3.; 40 C.F.R. §60.4207(b); 40 C.F.R. §80.510(b); 45CSR16]

8.1.4. In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of §60.4208 after the dates specified in paragraphs (a) through (g) of §60.4208.
[45CSR13, R13-2818, 9.1.4.; 40 C.F.R. §60.4208(h); 45CSR16]

8.1.5. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
[45CSR13, R13-2818, 9.1.5.; 40 C.F.R. §60.4209(a); 45CSR16]

8.1.6. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
[45CSR13, R13-2818, 9.1.7.; 40 C.F.R. §60.4211(a); 45CSR16]

8.1.7. If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §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 specifications.
[45CSR13, R13-2818, 9.1.8.; 40 C.F.R. §60.4211(c); 45CSR16]

8.1.8. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be

considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart 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) You may operate your emergency stationary ICE for the purposes specified in paragraph (2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (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.

[45CSR13, R13-2818, 9.1.9.; 40 C.F.R. §60.4211(f); 45CSR16]

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

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance 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, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. *(Em. Unit IDs: M7-G-9, MD1-G-4, MD1-G-5, MD2-G-10, and MD2-G-11)*

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you 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, you 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 you change emission-related settings in a way that is not permitted by the manufacturer. *(Em. Unit IDs: M3-G-2, M3-G-3, M4-G-6, and M4-G-7)*

[45CSR13, R13-2818, 9.1.10.; 40 C.F.R. §§ 60.4211(g), (g)(1), and (g)(2); 45CSR16]

8.1.10. **40 C.F.R. 63 Subpart ZZZZ Requirements**.

(1) The permittee must comply with the applicable operating limitations in 40 C.F.R. 63 Subpart ZZZZ no later than October 19, 2013.

(2) *Stationary RICE subject to Regulations under 40 CFR Part 60*. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of §63.6590 must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under part 60.

The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII listed in Section 8.0 of this permit.

[45CSR13, R13-2818, 10.1.1. and 10.1.2.; 40 C.F.R. §63.6595(a); 40 C.F.R. §§ 63.6590(c) and (c)(1); 45CSR34]

8.2. Monitoring Requirements

8.2.1. Reserved.

8.3. Testing Requirements

8.3.1. **Stack Testing**. At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or other tests the Secretary may specify shall be conducted to determine compliance. For cause, the Secretary may request the permittee to install such stack gas monitoring devices as the Secretary deems necessary to determine continuing compliance. The data from such devices shall be readily available for review on-site or such other reasonable location that the Secretary may specify. At the request of the Secretary, such data shall be made available for inspection or copying and the Secretary may require periodic submission of excess emission reports (45CSR13).

8.3.1.a. 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.

[WV Code § 22-5-4(a)(15)]

[45CSR13, R13-2818, 9.2.1.]

8.3.2. **Notification of Compliance Testing.** For any compliance test to be conducted by the permittee as set forth in this section, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The permittee shall notify the Secretary at least fifteen (15) calendar days in advance of actual compliance test dates and times during which the test (or tests) will be conducted.
[45CSR13, R13-2818, 9.2.2.]

8.3.3. **Alternative Test Methods.** The Secretary may require a different test method or approve an alternative method in light of any technology advancements that may occur and may conduct such other tests as may be deem necessary to evaluate air pollution emissions.
[45CSR13, R13-2818, 9.2.3.]

8.3.4. Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of 40 C.F.R. §60.4212.
[45CSR13, R13-2818, 9.2.4.; 40 C.F.R. §60.4212; 45CSR16]

8.3.5. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

[40 C.F.R. §60.4212(c); 45CSR16] (M3-G-2, M3-G-3, M4-G-6, M4-G-7, M7-G-9, MD1-G-4, and MD2-G-11)

8.4. Recordkeeping Requirements

8.4.1. **Monitoring Information.** The permittee shall keep the following records of monitoring information:

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

[45CSR13, R13-2818, 9.3.1.]

8.4.2. **Equipment Maintenance Records**. The permittee shall maintain maintenance records relating to failure and/or repair of the emergency generators. In the event of equipment or system failure, these records shall document the permittee's effort to maintain proper and effective operation of such equipment and/or systems.
[45CSR13, R13-2818, 9.3.2.]

8.4.3. 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 this subpart, if the emergency engine does not meet the standards applicable to nonemergency 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, R13-2818, 9.3.4.; 40 C.F.R. §60.4214(b); 45CSR16] (M3-G-2, M3-G-3, M4-G-6, M4-G-7, M7-G-9, and MD2-G-11)

8.5. Reporting Requirements

8.5.1. **Compliance Testing.** The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Section 8.0.
[45CSR13, R13-2818, 9.3.3.]

8.6. Compliance Plan

8.6.1. Reserved.

9.0 40 C.F.R. 60 Subpart OOOO/OOOOa – Pneumatic Controllers Requirements

9.1. Limitations and Standards

9.1.1. **Subpart OOOO Standards for Pneumatic Controllers**. Each pneumatic controller affected facility at a natural gas processing plant must have a bleed rate of zero. Each pneumatic controller affected facility at a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller as required in §60.5420(c)(4)(iv).

(a) The requirements of paragraph (b)(1) or (c)(1) of this section are not required if you determine that the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required based on functional needs, including but not limited to response time, safety and positive actuation. However, you must tag such pneumatic controller with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller, as required in §60.5420(c)(4)(ii).

(b)
(1) Each pneumatic controller affected facility at a natural gas processing plant must have a bleed rate of zero.
(2) Each pneumatic controller affected facility at a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller as required in §60.5420(c)(4)(iv).

(c)
(1) Each pneumatic controller affected facility at a location other than at a natural gas processing plant must have a bleed rate less than or equal to 6 standard cubic feet per hour.
(2) Each pneumatic controller affected facility at a location other than at a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that controller as required in §60.5420(c)(4)(iii).

(d) You must demonstrate initial compliance with standards that apply to pneumatic controller affected facilities as required by §60.5410(d).

(e) You must demonstrate continuous compliance with standards that apply to pneumatic controller affected facilities as required by §60.5415(d).

(f) You must perform the reporting as required by §60.5420(b)(1) and (5) and the recordkeeping as required by §60.5420(c)(4).

[40 C.F.R. §§ 60.5390 and 60.5390(a) through (f); 45CSR16; 45CSR13, R13-2818, 11.1.2.] (Majorsville I through VI)

9.1.2. **Standards for Pneumatic Controllers under Subpart OOOOa**. For each pneumatic controller affected facility you must comply with the GHG and VOC standards, based on natural gas as a surrogate for GHG and VOC, in either paragraph (b)(1) or (c)(1) of this section, as applicable. Pneumatic controllers meeting the conditions in paragraph (a) of this section are exempt from this requirement.

(a) The requirements of paragraph (b)(1) or (c)(1) of this section are not required if you determine that the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required based on functional needs, including but not limited to response time, safety and positive actuation. However, you must tag such pneumatic controller with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller, as required in §60.5420a(c)(4)(ii).

(b)

(1) Each pneumatic controller affected facility at a natural gas processing plant must have a bleed rate of zero.
(2) Each pneumatic controller affected facility at a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller as required in §60.5420a(c)(4)(iv).

(c)

(1) Each pneumatic controller affected facility at a location other than at a natural gas processing plant must have a bleed rate less than or equal to 6 standard cubic feet per hour.
(2) Each pneumatic controller affected facility at a location other than at a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that controller as required in §60.5420a(c)(4)(iii).

(d) You must demonstrate initial compliance with standards that apply to pneumatic controller affected facilities as required by §60.5410a(d).

(e) You must demonstrate continuous compliance with standards that apply to pneumatic controller affected facilities as required by §60.5415a(d).

(f) You must perform the reporting as required by §60.5420a(b)(1) and (5) and the recordkeeping as required by §60.5420a(c)(4).

[40 C.F.R. §§ 60.5390a and 60.5390a(a) through (f); 45CSR16; 45CSR13, R13-2818, 11.1.2] (Majorsville VII)

9.1.3. **Initial Compliance Demonstration for Pneumatic Controllers under Subpart OOOOa**. You must determine initial compliance with the standards for each affected facility using the requirements in paragraph (d) of this condition. The initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later, and ends no later than 1 year after the initial startup date for your affected facility or no later than 1 year after August 2, 2016. The initial compliance period may be less than one full year.

(d) To achieve initial compliance with methane and VOC emission standards for your pneumatic controller affected facility you must comply with the requirements specified in paragraphs (1) through (6) of this condition, as applicable.

(1) You must demonstrate initial compliance by maintaining records as specified in §60.5420a(c)(4)(ii) of your determination that the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required as specified in §60.5390a(b)(1) or (c)(1).
(2) If you own or operate a pneumatic controller affected facility located at a natural gas processing plant, your pneumatic controller must be driven by a gas other than natural gas, resulting in zero natural gas emissions.

(3) If you own or operate a pneumatic controller affected facility located other than at a natural gas processing plant, the controller manufacturer's design specifications for the controller must indicate that the controller emits less than or equal to 6 standard cubic feet of gas per hour.
(4) You must tag each new pneumatic controller affected facility according to the requirements of §60.5390a(b)(2) or (c)(2).
(5) You must include the information in paragraph (d)(1) of this section and a listing of the pneumatic controller affected facilities specified in paragraphs (d)(2) and (3) of this section in the initial annual report submitted for your pneumatic controller affected facilities constructed, modified or reconstructed during the period covered by the annual report according to the requirements of §60.5420a(b)(1) and (5).
(6) You must maintain the records as specified in §60.5420a(c)(4) for each pneumatic controller affected facility.

[40 C.F.R. §§60.5410a and 60.5410a(d); 45CSR16] (Majorsville VII)

9.1.4. **Continuous Compliance Demonstration for Pneumatic Controllers under Subpart OOOOa**. For each pneumatic controller affected facility, you must demonstrate continuous compliance according to paragraphs (1) through (3) of this condition.

(1) You must continuously operate the pneumatic controllers as required in §60.5390a(a), (b), or (c).

(2) You must submit the annual reports as required in §60.5420a(b)(1) and (5).

(3) You must maintain records as required in §60.5420a(c)(4).

[40 C.F.R. §§60.5415a and 60.5415a(d); 45CSR16] (Majorsville VII)

9.1.5. **Initial Compliance Demonstration for Pneumatic Controllers under Subpart OOOO**. You must determine initial compliance with the standards for each affected facility using the requirements in paragraph (d) of this condition. The initial compliance period begins on October 15, 2012, or upon initial startup, whichever is later, and ends no later than one year after the initial startup date for your affected facility or no later than one year after October 15, 2012. The initial compliance period may be less than one full year.

(d) To achieve initial compliance with emission standards for your pneumatic controller affected facility you must comply with the requirements specified in paragraphs (1) through (6) of this condition, as applicable.

(1) You must demonstrate initial compliance by maintaining records as specified in §60.5420(c)(4)(ii) of your determination that the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required as specified in §60.5390(a).
(2) If you own or operate a pneumatic controller affected facility located at a natural gas processing plant, your pneumatic controller must be driven by a gas other than natural gas, resulting in zero natural gas emissions.
(3) You own or operate a pneumatic controller affected facility located between the wellhead and a natural gas processing plant and the manufacturer's design specifications indicate that the controller emits less than or equal to 6 standard cubic feet of gas per hour.
(4) You must tag each new pneumatic controller affected facility according to the requirements of §60.5390(b)(2) or (c)(2).

(5) You must include the information in paragraph (d)(1) of this condition and a listing of the pneumatic controller affected facilities specified in paragraphs (d)(2) and (3) of this condition in the initial annual report submitted for your pneumatic controller affected facilities constructed, modified or reconstructed during the period covered by the annual report according to the requirements of §60.5420(b).

(6) You must maintain the records as specified in §60.5420(c)(4) for each pneumatic controller affected facility.

[40 C.F.R. §§60.5410 and 60.5410(d); 45CSR16] (Majorsville I - VI)

9.1.6. **Continuous Compliance Demonstration for Pneumatic Controllers under Subpart OOOO**. For each pneumatic controller affected facility, you must demonstrate continuous compliance according to paragraphs (1) through (3) of this condition.

(1) You must continuously operate the pneumatic controllers as required in §60.5390(a), (b), or (c).

(2) You must submit the annual reports as required in §60.5420(b).

(3) You must maintain records as required in §60.5420(c)(4).

[40 C.F.R. §§60.5415 and 60.5415(d); 45CSR16] (Majorsville I - VI)

9.2. Monitoring Requirements

9.2.1. Reserved.

9.3. Testing Requirements

9.3.1. Reserved.

9.4. Recordkeeping Requirements

9.4.1. *Recordkeeping requirements under Subpart OOOOa.* You must maintain the records identified as specified in §60.7(f) and in paragraph (4) of this condition. All records required by this subpart 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 C.F.R. 60 Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(4) For each pneumatic controller affected facility, you must maintain the records identified in paragraphs (4)(i) through (v) of this condition, as applicable.

(i) Records of the date, location and manufacturer specifications for each pneumatic controller constructed, modified or reconstructed.

(ii) Records of the demonstration that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than the applicable standard are required and the reasons why.

(iii) If the pneumatic controller is not located at a natural gas processing plant, records of the manufacturer's specifications indicating that the controller is designed such that natural gas bleed rate is less than or equal to 6 standard cubic feet per hour.

(iv) If the pneumatic controller is located at a natural gas processing plant, records of the documentation that the natural gas bleed rate is zero.

(v) Records of deviations in cases where the pneumatic controller was not operated in compliance with the requirements specified in §60.5390a.

[40 C.F.R. §§60.5420a(c) and (c)(4); 45CSR16] (Majorsville VII)

9.4.2. *Recordkeeping requirements under Subpart OOOO*. You must maintain the records identified as specified in §60.7(f) and in paragraph (4) of this condition. All records required by this subpart must be maintained either onsite or at the nearest local field office for at least 5 years.

(4) For each pneumatic controller affected facility, you must maintain the records identified in paragraphs (4)(i) through (v) of this condition.

(i) Records of the date, location and manufacturer specifications for each pneumatic controller constructed, modified or reconstructed.

(ii) Records of the demonstration that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than the applicable standard are required and the reasons why.

(iii) If the pneumatic controller is not located at a natural gas processing plant, records of the manufacturer's specifications indicating that the controller is designed such that natural gas bleed rate is less than or equal to 6 standard cubic feet per hour.

(iv) If the pneumatic controller is located at a natural gas processing plant, records of the documentation that the natural gas bleed rate is zero.

(v) Records of deviations in cases where the pneumatic controller was not operated in compliance with the requirements specified in §60.5390.

[40 C.F.R. §§60.5420(c) and (c)(4); 45CSR16] (Majorsville I - VI)

9.5. Reporting Requirements

9.5.1. *Reporting requirements under Subpart OOOOa.* You must submit annual reports containing the information specified in paragraphs (b)(1) and (b)(5) of §60.5420a. You must submit annual reports following the procedure specified in paragraph (b)(11) of §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 §60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility (refer to condition 13.5.4.), you 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) of §60.5420a, except as provided in paragraph (b)(13) of §60.5420a. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

(1) The general information specified in paragraphs (1)(i) through (iv) of this condition for all reports.

(i) The company name, facility site name associated with the affected facility, US Well ID or US 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.

(5) For each pneumatic controller affected facility, the information specified in paragraphs (5)(i) through (iii) of this condition.

(i) An identification of each pneumatic controller constructed, modified or reconstructed during the reporting period, including the identification information specified in §60.5390a(b)(2) or (c)(2).

(ii) If applicable, documentation that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than 6 standard cubic feet per hour are required and the reasons why.

(iii) Records of deviations specified in paragraph (c)(4)(v) of §60.5420a (condition 9.4.1.(4)(v)) that occurred during the reporting period.

(11) You must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (*https://cdx.epa.gov/)*.) You must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/*). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 calendar days, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

[40 C.F.R. §§60.5420a(b), (b)(1), (b)(5) and (b)(11); 45CSR16] (Majorsville VII)

9.5.2. *Reporting requirements under Subpart OOOO.* You must submit annual reports containing the information specified in paragraphs (1) and (5) of this condition to the Administrator and performance test reports as specified in paragraph (7) of §60.5420(c). The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to §60.5410. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility (refer to condition 13.5.2.), you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (1) and (5) of this condition, and paragraph (7) of §60.5420(c). Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

(1) The general information specified in paragraphs (1)(i) through (iv) of this condition.

(i) The company name and address of the affected facility.

(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.

(5) For each pneumatic controller affected facility, the information specified in paragraphs (5)(i) through (iii) of this condition.

(i) An identification of each pneumatic controller constructed, modified or reconstructed during the reporting period, including the identification information specified in §60.5390(b)(2) or (c)(2).

(ii) If applicable, documentation that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than 6 standard cubic feet per hour are required and the reasons why.

(iii) Records of deviations specified in paragraph (c)(4)(v) of §60.5420 (condition 9.4.2.(4)(v)) that occurred during the reporting period.

[40 C.F.R. §§60.5420(b), (b)(1), and (b)(5); 45CSR16] (Majorsville I - VI)

9.6. Compliance Plan

9.6.1. Reserved.

10.0 Reserved.

11.0 Reserved.

12.0 40 C.F.R. 60 Subpart OOOOa Equipment Leak Requirements

12.1. Limitations and Standards

12.1.1. The permittee must be in compliance with the standards of this subpart no later than August 2, 2016 or upon startup, whichever is later.
[45CSR13, R13-2818, 12.1.1; 40 C.F.R. §60.5370a(a); 45CSR16]

12.1.2. 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 this subpart.
[45CSR13, R13-2818, 12.1.2; 40 C.F.R. §60.5370a(b); 45CSR16]

12.1.3. The permittee is exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.
[45CSR13, R13-2818, 12.1.3; 40 C.F.R. §60.5370a(c); 45CSR16]

12.1.4. **Equipment Leak Standards.** This section applies to the group of all equipment, except compressors, within a process unit.

(a) You must comply with the requirements of §§60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401a.

(b) You may elect to comply with the requirements of §§60.483-1a and 60.483-2a, as an alternative.

(c) You 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 this subpart according to the requirements of §60.5402a.

(d) You must comply with the provisions of §60.485a of this part except as provided in paragraph (f) of this section.

(e) You must comply with the provisions of §§60.486a and 60.487a of this part except as provided in §§60.5401a, 60.5421a, and 60.5422a of this part.

(f) You must use the following provision instead of §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 §60.17) must be used.

[45CSR13, R13-2818, 12.1.4; 40 C.F.R. §60.5400a; 45CSR16]

12.1.5. **Exceptions to the Equipment Leak Standards.**

(a) You may comply with the following exceptions to the provisions of §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 §60.485a(b) except as provided in §60.5400a(c) and in paragraph (b)(4) of this section, and §60.482-4a(a) through (c) of subpart VVa.

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

(3)

(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 §60.482-9a.

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

(4)

(i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by non-plant personnel may be monitored after a pressure release the next time the monitoring personnel are on-site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

(ii) No pressure relief device described in paragraph (b)(4)(i) of this section must be allowed to operate for more than 30 days after a pressure release without monitoring.

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

(d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482-2a(a)(1) and 60.482-7a(a), and paragraph (b)(1) of this section.

(e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482-2a(a)(1), 60.482-7a(a), and paragraph (b)(1) of this section.

(f) An owner or operator may use the following provisions instead of §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 §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 §60.17).

(g) An owner or operator may use the following provisions instead of §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 this part, 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 §60.486a(e)(8). Divide these readings by the initial calibration values for each scale 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 initial calibration value, 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 initial calibration value, 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.

[45CSR13, R13-2818, 12.1.5; 40 C.F.R. §60.5401a; 45CSR16]

12.1.6. **Alternative Emission Limitations for Equipment Leaks.**

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in GHG and VOC emissions at least equivalent to the reduction in GHG and VOC emissions achieved under any design, equipment, work practice or operational standard, the Administrator will publish, in the Federal Register, a notice permitting the use of that alternative means for the purpose of compliance with that standard. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section must be published only after notice and an opportunity for a public hearing.

(c) The Administrator will consider applications under this section from either owners or operators of affected facilities, or manufacturers of control equipment.

(d) An application submitted under paragraph (c) of this section must meet the following criteria:

(1) The applicant must collect, verify and submit test data, covering a period of at least 12 months, necessary to support the finding in paragraph (a) of this section.

(2) The application must include operation, maintenance and other provisions necessary to assure reduction in methane and VOC emissions at least equivalent to the reduction in methane and VOC emissions achieved under the design, equipment, work practice or operational standard in paragraph (a) of this section by including the information specified in paragraphs (d)(1)(i) through (x) of this section.

(i) A description of the technology or process.

(ii) The monitoring instrument and measurement technology or process.

(iii) A description of performance based procedures (i.e. method) and data quality indicators for precision and bias; the method detection limit of the technology or process.

(iv) The action criteria and level at which a fugitive emission exists.

(v) Any initial and ongoing quality assurance/quality control measures.

(vi) Timeframes for conducting ongoing quality assurance/quality control.

(vii) Field data verifying viability and detection capabilities of the technology or process.

(viii) Frequency of measurements.

(ix) Minimum data availability.

(x) Any restrictions for using the technology or process.

(3) The application must include initial and continuous compliance procedures including recordkeeping and reporting.

[45CSR13, R13-2818, 12.1.6; 40 C.F.R. §60.5402a; 45CSR16]

12.1.7. **Initial Compliance Demonstration for Equipment Leak Standards**. You must determine initial compliance with the standards for each affected facility using the requirements in paragraph (f) of this section. The initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later, and ends no later than 1 year after the initial startup date for your affected facility or no later than 1 year after August 2, 2016. The initial compliance period may be less than one full year.

(f) For affected facilities at onshore natural gas processing plants, initial compliance with the methane and VOC standards is demonstrated if you are in compliance with the requirements of §60.5400a.

[45CSR13, R13-2818, 12.2.1; 40 C.F.R. §§60.5410a and 60.5410a(f); 45CSR16]

12.1.8. **Continuous Compliance Demonstration for Equipment Leak Standards**. For affected facilities at onshore natural gas processing plants, continuous compliance with methane and VOC requirements is demonstrated if you are in compliance with the requirements of §60.5400a.
[45CSR13, R13-2818, 12.3.1; 40 C.F.R. §§60.5415a and 60.5415a(f); 45CSR16]

12.2. Monitoring Requirements

12.2.1. Reserved.

12.3. Testing Requirements

12.3.1. Reserved.

12.4. Recordkeeping Requirements

12.4.1. **Additional Recordkeeping Requirements.**

(a) You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

(b) The following recordkeeping requirements apply to pressure relief devices subject to the requirements of §60.5401a(b)(1).

(1) When each leak is detected as specified in §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.

(2) When each leak is detected as specified in §60.5401a(b)(2), the information specified in paragraphs (b)(2)(i) through (x) of this section must be recorded in a log and shall be kept for 2 years in a readily accessible location:

(i) The instrument and operator identification numbers and the equipment identification number.

(ii) The date the leak was detected and the dates of each attempt to repair the leak.

(iii) Repair methods applied in each attempt to repair the leak.

(iv) "Above 500 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 500 ppm or greater.

(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(vii) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(ix) The date of successful repair of the leak.

(x) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) must be signed by the owner or operator.

[45CSR13, R13-2818, 12.4.1; 40 C.F.R. §60.5421a; 45CSR16]

12.5. Reporting Requirements

12.5.1. **Additional Reporting Requirements.**

(a) You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b), (c)(2)(i) through (iv), and (c)(2)(vii) through (viii). You 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 this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart 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 §60.4. Once the form has been available in CEDRI for at least 90 days, you must begin submitting all subsequent reports via CEDRI. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

(b) An owner or operator must include the following information in the initial semiannual report in addition to the information required in §60.487a(b)(1) through (4): Number of pressure relief devices subject to the requirements of §60.5401a(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

(c) An owner or operator must include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2)(i) through (vi):

(1) Number of pressure relief devices for which leaks were detected as required in §60.5401a(b)(2); and

(2) Number of pressure relief devices for which leaks were not repaired as required in §60.5401a(b)(3).

[45CSR13, R13-2818, 12.4.2; 40 C.F.R. §60.5422a; 45CSR16]

12.5.2. You must submit the notifications according to paragraph (1) of this condition if you own or operate one or more of the affected facilities specified in §60.5365a that was constructed, modified or reconstructed during the reporting period.

(1) If you own or operate an affected facility that is the group of all equipment within a process unit at an onshore natural gas processing plant, you must submit the notifications required in §60.7(a)(1), (3), and (4).

§60.7(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

§60.7(a)(1)	A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
§60.7(a)(3)	A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

§60.7(a)(4)	A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 C.F.R. §§60.5420a(a) and (a)(1); 45CSR16]

12.6. Compliance Plan

12.6.1. Reserved.

13.0 40 C.F.R. 60 Subpart OOOO/OOOOa – Reciprocating Compressors Requirements

13.1. Limitations and Standards

13.1.1. **Subpart OOOO Standards**. You must comply with the standards in paragraphs (a) through (d) of this condition for each reciprocating compressor affected facility.

(a) You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this condition or you 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 your 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 §60.5411(a).

(b) You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by §60.5410.

(c) You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by §60.5415.

(d) You must perform the required notification, recordkeeping, and reporting as required by §60.5420.

[40 C.F.R. §60.5385; 45CSR16; 45CSR13, R13-2818, 11.1.1] (Majorsville, I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

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

(a) Closed vent system requirements for reciprocating compressors.

(1) You 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 §60.5412(a) through (c).

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

(3) You 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, you must comply with either paragraph (a)(3)(i)(A) or (B) of this section for each bypass device.

(A) You 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 §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. You must maintain records of each time the alarm is activated according to §60.5420(c)(8).

(B) You 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.

[40 C.F.R. §§ 60.5411 and 60.5411(a); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.1.3. **Subpart OOOOa Standards**. You 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) You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this condition, or you 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 your 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 §60.5411a(a) and (d).

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

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

(d) You must perform the reporting as required by §60.5420a(b)(1) and (4) and the recordkeeping as required by §60.5420a(c)(3), (6) through (9), and (17), as applicable.

[40 C.F.R. §60.5385a; 45CSR16; 45CSR13, R13-2818, 11.1.1] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.1.4. **Closed vent system requirements for reciprocating compressors under Subpart OOOOa**. You must meet the applicable requirements of this section for each cover and closed vent system used to comply with the emission standards for your centrifugal compressor wet seal degassing systems, reciprocating compressors, pneumatic pumps and storage vessels except as provided in paragraph (e) of this section.

(a) Closed vent system requirements for reciprocating compressors, centrifugal compressor wet seal degassing systems and pneumatic pumps.

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

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

(3) You 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, you must comply with either paragraph (a)(3)(i)(A) or (B) of this section for each bypass device.

(A) You 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 §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. You must maintain records of each time the alarm is activated according to §60.5420a(c)(8).

(B) You 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.

(d) Closed vent systems requirements for centrifugal compressor wet seal fluid degassing systems, reciprocating compressors, pneumatic pumps and storage vessels using a control device or routing emissions to a process.

(1) You must conduct an assessment that the closed vent system is of sufficient design and capacity to ensure that all emissions from the storage vessel 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 in accordance with paragraphs (d)(1)(i) and (ii) of this section.

(i) You must provide the following certification, signed and dated by the qualified professional 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 part 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. I am aware that there are penalties for knowingly submitting false information."

(ii) The assessment shall be prepared under the direction or supervision of the qualified professional engineer who signs the certification in paragraph (d)(1)(i) of this section.

[40 C.F.R. §§ 60.5411a, 60.5411a(a), and 60.5411a(d); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.2. Monitoring Requirements

13.2.1. **Initial Compliance Demonstration for 40 C.F.R. 60 Subpart OOOO**. To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (1) through (4) of this condition.

(1) If complying with §60.5385(a)(1) or (2), during the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.

(2) If complying with §60.5385(a)(3), you 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 §60.5411(a).

(3) You must submit the initial annual report for your reciprocating compressor as required in §60.5420(b).

(4) You must maintain the records as specified in §60.5420(c)(3) for each reciprocating compressor affected facility.

[40 C.F.R. §§60.5410 and 60.5410(c); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.2.2. **Continuous Compliance Demonstration for 40 C.F.R. 60 Subpart OOOO**. For each reciprocating compressor affected facility complying with §60.5385(a)(1) or (2), you must demonstrate continuous compliance according to paragraphs (1) through (3) of this condition. For each reciprocating compressor affected facility complying with §60.5385(a)(3), you must demonstrate continuous compliance according to paragraph (4) of this condition.

(1) You 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.

(2) You must submit the annual report as required in §60.5420(b) and maintain records as required in §60.5420(c)(3).

(3) You 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.

(4) You must operate the rod packing emissions collection system under negative pressure and continuously comply with the closed vent requirements in §60.5416(a) and (b).

[40 C.F.R. §60.5415(c); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.2.3. **Initial Compliance Demonstration for 40 C.F.R. 60 Subpart OOOOa**. To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (1) through (4) of this condition.

(1) If complying with §60.5385a(a)(1) or (2), during the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.

(2) If complying with §60.5385a(a)(3), you 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 §60.5411a(a) and (d).

(3) You must submit the initial annual report for your reciprocating compressor as required in §60.5420a(b)(1) and (4).

(4) You must maintain the records as specified in §60.5420a(c)(3) for each reciprocating compressor affected facility.

[40 C.F.R. §§60.5410a and 60.5410a(c); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.2.4. **Continuous Compliance Demonstration for 40 C.F.R. 60 Subpart OOOOa**. For each reciprocating compressor affected facility complying with §60.5385a(a)(1) or (2), you must demonstrate continuous compliance according to paragraphs (1) through (3) of this condition. For each reciprocating compressor affected facility complying with §60.5385a(a)(3), you must demonstrate continuous compliance according to paragraph (4) of this condition.

(1) You 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.

(2) You must submit the annual reports as required in §60.5420a(b)(1) and (4) and maintain records as required in §60.5420a(c)(3).

(3) You 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.

(4) You must operate the rod packing emissions collection system under negative pressure and continuously comply with the cover and closed vent requirements in §60.5416a(a) and (b).

[40 C.F.R. §§60.5415a and 60.5415a(c); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.3. Testing Requirements

13.3.1. **Inspections for closed vent systems installed on each reciprocating compressor affected facility under Subpart OOOO**. Except as provided in paragraphs (b)(11) and (12) of §60.5416, you must inspect each closed vent system according to the procedures and schedule specified in paragraphs (1) and (2) of this condition, and inspect each bypass device according to the procedures of paragraph (4) of this condition.

(1) 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), you must meet the requirements specified in paragraphs (1)(i) and (ii) of this condition.

(i) Conduct an initial inspection according to the test methods and procedures specified in paragraph (b) of §60.5416 to demonstrate that the closed vent system operates with no detectable emissions. You must maintain records of the inspection results as specified in §60.5420(c)(6).

(ii) 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. You must monitor a

component or connection using the test methods and procedures in paragraph (b) of this section to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. You must maintain records of the inspection results as specified in §60.5420(c)(6).

(2) For closed vent system components other than those specified in paragraph (1) of this condition, you must meet the requirements of paragraphs (2)(i) through (iii) of this condition.

(i) Conduct an initial inspection according to the test methods and procedures specified in paragraph (b) of §60.5416 to demonstrate that the closed vent system operates with no detectable emissions. You must maintain records of the inspection results as specified in §60.5420(c)(6).

(ii) Conduct annual inspections according to the test methods and procedures specified in paragraph (b) of §60.5416 to demonstrate that the components or connections operate with no detectable emissions. You must maintain records of the inspection results as specified in §60.5420(c)(6).

(iii) 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. You must maintain records of the inspection results as specified in §60.5420(c)(6).

(3) For each cover, you must meet the requirements in paragraphs (3)(i) and (ii) of this condition.

(i) 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, you 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.

(ii) You must initially conduct the inspections specified in paragraph (3)(i) of this condition following the installation of the cover. Thereafter, you must perform the inspection at least once every calendar year, except as provided in paragraphs (b)(11) and (12) of §60.5416 (condition 13.3.2.). You must maintain records of the inspection results as specified in §60.5420(c)(7).

(4) For each bypass device, except as provided for in §60.5411, you must meet the requirements of paragraphs (4)(i) or (ii) of this condition.

(i) 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.

(ii) 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. You must maintain records of the inspections according to §60.5420(c)(8).

[40 C.F.R. §§ 60.5416, 60.5416(a), 60.5416(a)(1), (2), (3), and (4); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.3.2. **No detectable emissions test methods and procedures under Subpart OOOO**. If you are required to conduct an inspection of a closed vent system at your reciprocating compressor affected facility as specified in paragraphs (a)(1) or (2) of §60.5416, you must meet the requirements of paragraphs (b)(1) through (13) of §60.5416.
[40 C.F.R. §§ 60.5416 and 60.5416(b); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.3.3. **Inspections for closed vent systems installed on each reciprocating compressor affected facility under Subpart OOOOa**. Except as provided in paragraphs (b)(11) and (12) of this section, you must inspect each closed vent system according to the procedures and schedule specified in paragraphs (a)(1) and (2) of this section, inspect each cover according to the procedures and schedule specified in paragraph (a)(3) of this section, and inspect each bypass device according to the procedures of paragraph (a)(4) of this section.

(1) 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), you must meet the requirements specified in paragraphs (a)(1)(i) and (ii) of this section..

(i) Conduct an initial inspection according to the test methods and procedures specified in paragraph (b) of this section to demonstrate that the closed vent system operates with no detectable emissions. You must maintain records of the inspection results as specified in §60.5420a(c)(6).

(ii) 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. You must monitor a component or connection using the test methods and procedures in paragraph (b) of this section to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. You must maintain records of the inspection results as specified in §60.5420a(c)(6).

(2) For closed vent system components other than those specified in paragraph (a)(1) of this section, you must meet the requirements of paragraphs (a)(2)(i) through (iii) of this section.

(i) Conduct an initial inspection according to the test methods and procedures specified in paragraph (b) of this section to demonstrate that the closed vent system operates with no detectable emissions. You must maintain records of the inspection results as specified in §60.5420a(c)(6).

(ii) Conduct annual inspections according to the test methods and procedures specified in paragraph (b) of this section to demonstrate that the components or connections operate

with no detectable emissions. You must maintain records of the inspection results as specified in §60.5420a(c)(6).

(iii) 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. You must maintain records of the inspection results as specified in §60.5420a(c)(6).

(3) For each cover, you must meet the requirements in paragraphs (3)(i) and (ii) of this condition.

(i) 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, you 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.

(ii) You must initially conduct the inspections specified in paragraph (3)(i) of this condition following the installation of the cover. Thereafter, you must perform the inspection at least once every calendar year, except as provided in paragraphs (b)(11) and (12) of §60.5416a (condition 13.3.4.). You must maintain records of the inspection results as specified in §60.5420a(c)(7).

(4) For each bypass device, except as provided for in §60.5411a(c)(3)(ii), you must meet the requirements of paragraphs (a)(4)(i) or (ii) of this section.

(i) 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.

(ii) 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. You must maintain records of the inspections according to §60.5420a(c)(8).

[40 C.F.R. §§ 60.5416a, 60.5416a(a), 60.5416a(a)(1), (2), and (4); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.3.4. **No detectable emissions test methods and procedures under Subpart OOOOa**. If you are required to conduct an inspection of a closed vent system at your reciprocating compressor affected facility as specified in paragraphs (a)(1), (2), or (3) of this condition, you must meet the requirements of paragraphs (b)(1) through (13) of §60.5416a.
[40 C.F.R. §§ 60.5416a and 60.5416a(b); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.4. Recordkeeping Requirements

13.4.1. **Recordkeeping requirements under Subpart OOOO**. You must maintain the records identified as specified in §60.7(f) and in paragraphs (3), (6), (7), (8), and (9) of this condition. All records required by this subpart must be maintained either onsite or at the nearest local field office for at least 5 years.

(3) For each reciprocating compressor affected facility, you must maintain the records identified in paragraphs (3)(i) through (iii) of this condition.

(i) 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.

(ii) 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 §60.5385(a)(3).

(iii) Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in §60.5385.

(6) Records of each closed vent system inspection required under §60.5416(a)(1) and (2) for reciprocating compressors.

(7) A record of each cover inspection required under §60.5416(a)(3) for reciprocating compressors.

(8) If you are subject to the bypass requirements of §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.

(9) If you are subject to the closed vent system no detectable emissions requirements of §60.5416(b) for reciprocating compressors, a record of the monitoring conducted in accordance with §60.5416(b).

[40 C.F.R. §§60.5420(c), (c)(3), (c)(6), (c)(7), (c)(8), and (c)(9); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.4.2. **Recordkeeping requirements under Subpart OOOOa**. You must maintain the records identified as specified in §60.7(f) and in paragraphs (3), (6) – (9), and (17) of this condition. All records required by this subpart 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 C.F.R. 60 Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(3) For each reciprocating compressor affected facility, you must maintain the records in paragraphs (3)(i) through (iii) of this condition.

(i) Records of the cumulative number of hours of operation or number of months since initial startup or the previous replacement of the reciprocating compressor rod packing,

whichever is later. Alternatively, a statement that emissions from the rod packing are being routed to a process through a closed vent system under negative pressure.

(ii) 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 §60.5385a(a)(3).

(iii) Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in §60.5385a.

(6) Records of each closed vent system inspection required under §60.5416a(a)(1) and (2) for reciprocating compressors.

(7) A record of each cover inspection required under §60.5416a(a)(3) for reciprocating compressors.

(8) If you are subject to the bypass requirements of §60.5416a(a)(4) for reciprocating compressors, 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.

(9) If you are subject to the closed vent system no detectable emissions requirements of §60.5416a(b) for reciprocating compressors, a record of the monitoring conducted in accordance with §60.5416a(b).

(17) For each closed vent system routing to a control device or process, the records of the assessment conducted according to §60.5411a(d):

(i) A copy of the assessment conducted according to §60.5411a(d)(1);
(ii) A copy of the certification according to §60.5411a(d)(1)(i); and
(iii) 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.

[40 C.F.R. §§60.5420a(c), (c)(3), (c)(6), (c)(7), (c)(8), (c)(9), and (c)(17); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.5. Reporting Requirements

13.5.1. **Reporting requirements under Subpart OOOO**. You must submit annual reports containing the information specified in paragraphs (1) and (4) of this condition to the Administrator and performance test reports as specified in paragraph (7) of §60.5420(b). The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to §60.5410. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility (refer to condition 9.5.3.), you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (1) and (4) of this condition, and paragraph (7) of §60.5420(b). Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

(1) The general information specified in paragraphs (1)(i) through (iv) of this condition.

(i) The company name and address of the affected facility.

(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.

(4) For each reciprocating compressor affected facility, the information specified in paragraphs (4)(i) through (ii) of this condition.

(i) 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.

(ii) Records of deviations specified in paragraph (c)(3)(iii) of §60.5420 (condition 13.4.1.(3)(iii)) that occurred during the reporting period.

[40 C.F.R. §§60.5420(b), (b)(1), and (b)(4); 45CSR16] (Majorsville I through VI) (Compressor IDs: C-3102, C-3103, C-3104, C-3105, C-4110, C-4111, C-4102, C-4103, C-4104, C-4105, C-5102, C-5103, C-5104, C-6102, C-6103, C-6104, C-1101, C-1102, C-1103, C-7117, and C-2110)

13.5.2. **Reporting requirements under Subpart OOOOa**. You must submit annual reports containing the information specified in paragraphs (b)(1) and (b)(4) of §60.5420a. You must submit annual reports following the procedure specified in paragraph (b)(11) of §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 §60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility (refer to condition 9.5.1.), you 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) of §60.5420a, except as provided in paragraph (b)(13) of §60.5420a. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

(1) The general information specified in paragraphs (1)(i) through (iv) of this condition for all reports.

(i) The company name, facility site name associated with the affected facility, US Well ID or US 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.

(4) For each reciprocating compressor affected facility, the information specified in paragraphs (4)(i) and (ii) of this condition.

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

(ii) Records of deviations specified in paragraph (c)(3)(iii) of §60.5420a that occurred during the reporting period.

(11) You must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (*https://cdx.epa.gov/*).) You must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/*). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 calendar days, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

[40 C.F.R. §§60.5420a(b), (b)(1), (b)(4) and (b)(11); 45CSR16] (Majorsville VII) (Compressor IDs: C-7102, C-7103, C-7104, C-7105, C-D2101, C-D2102, C-D2103, and C-D2117)

13.6. Compliance Plan

13.6.1. Reserved.

14.0. Additional Requirements

14.1. Limitations and Standards

14.1.1. PORV Requirements. Any new Pilot-Operated Modulating Pressure Relief Valves (PORVs) shall have and operated Bottom Dome Vent Piping with the exception of the following:

a. Atmospheric PORVs that are not otherwise required to be routed through a closed-vent system or
b. snap-action PORVs.

[45CSR13, R13-2818, 13.1.1]

14.1.2. PORV Requirements. The permittee shall conduct Method 21 monitoring on all active PORVs on a quarterly basis unless the process unit has been permanently shut down. Leaks discovered from Method 21 monitoring shall be repaired as follows:

a. By no later than five days after detecting a leak, the permittee shall perform a first attempt at repair of the PORV. By no later than 15 days after detection, the permittee shall perform a final attempt at repair of the PORV or place it on the DOR list. Repair Verification Monitoring shall be conducted after the repair of any leaks. If an instrument reading of 500 ppm or greater is measured using EPA Method 21, a leak is detected.

b. For all PORVs placed on the DOR list, the permittee shall:

1. Require sign-off from the relevant process unit supervisor or person of similar authority that the PORV is technically infeasible to repair without a process unit shutdown;
2. Undertake monthly Method 21 monitoring of PORVs placed on the DOR list; and
3. Repair the PORV within the time frame required by NSPS Subpart OOOO.

[45CSR13, R13-2818, 13.1.2]

14.1.3. PORV Requirements. For each leak identified, the permittee shall record the following information:

a. The date the leak was identified and the screening value,
b. The date of all repair attempts,
c. The repair method used during each repair attempt,
d. The date, time, and screening values for all re-monitoring events,
e. Documentation of compliance with PORVs placed on the DOR list.

[45CSR13, R13-2818, 13.1.3]