

West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
Dominion Transmission, Inc.
Hastings Compressor Station
R30-10300006-2011

John A. Benedict
Director

Issued: July 11, 2011 • Effective: July 25, 2011

Expiration: July 11, 2016 • Renewal Application Due: January 11, 2016

Permit Number: **R30-10300006-2011**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Hastings Compressor Station**
Permittee Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

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:	Pine Grove, Wetzel County, West Virginia
Facility Mailing Address:	Route 20, Pine Grove, WV 26419
Telephone Number:	(304) 889-3177
Type of Business Entity:	Corporation
Facility Description:	Natural gas transmission facility
SIC Codes:	4922
UTM Coordinates:	528.09 km Easting • 4377.66 km Northing • Zone 17

Permit Writer: Natalya V. Chertkovsky-Veselova

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.....	3
2.0. General Conditions.....	5
3.0. Facility-Wide Requirements and Permit Shield.....	14

Source-specific Requirements

4.0. Source-Specific Requirements for Hastings Station Heater [HTR01].....	21
5.0. Source-Specific Requirements for Hastings Station Dehydration Unit [DEHY, DEHY01]	22
6.0. Source-Specific Requirements for Hastings Station engines [EN01, EN02 and AUX01]	28
7.0. Source-Specific Requirements for Mockingbird Hill Station [AUX02, AUX03, AUX04, <u>AUX06</u>, BLR02, TUR02]	35
8.0. Source-Specific Requirements for Lewis Station Engines [EN03, AUX05]	44
9.0. Source-Specific Requirements for Lewis Station Boiler [BLR05]	50

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
Hastings Station					
001-01*	EN01	Reciprocating Engine/Integral Compressor; Cooper GMXE-6	1968	500 HP	N/A
001-02*	EN02	Reciprocating Engine/Integral Compressor; Cooper GMXE-6	1968	500 HP	N/A
002-01*	AUX01	Reciprocating Engine/Auxiliary Generator; Waukesha F817G	1968	350 HP	N/A
003-01	FUG	Fugitive Emissions	1968		N/A
004-01*	DEHY01	Dehydration Unit Still; Natco	1972	7.5 mmscf/day	Flare (DEHY)
005-01*	HTR01	Heater; Natco 96x30	1977	10.0 MMBtu/hr	N/A
005-02*	RBR01	Reboiler; Natco 5GR-375-DX5	1972	0.38 MMBtu/hr	N/A
DEHY*	DEHY	Dehydration Unit Flare	1972	73acf/min	N/A
TK1	TK1	Horizontal, above ground tank containing Engine Oil	Unknown	10,000 gallon	N/A
TK2	TK2	Horizontal, above ground tank containing Ethylene Glycol and Water	Unknown	5,000 gallon	N/A
TK3	TK3	Horizontal, above ground tank containing Used Oil	Unknown	2,000 gallon	N/A
TK4	TK4	Horizontal, above ground tank containing Wastewater	Unknown	240 gallon	N/A
TK5	TK5	Horizontal, above ground tank containing Air Dryer Condensate	Unknown	240 gallon	N/A
TK6	TK6	Horizontal, above ground tank containing Air Dryer Condensate	Unknown	240 gallon	N/A
TK7	TK7	Horizontal, above ground tank containing Produced Fluids	Unknown	1,000 gallon	N/A
Mockingbird Hill Station					
002-02*	AUX02 (Aux Gen. 02)	Auxiliary Generator; Capstone Microturbine	2004	80 HP	N/A
002-03*	AUX03 (Aux Gen. 03)	Auxiliary Generator; Capstone Microturbine	2004	80 HP	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
002-04*	AUX04 (Aux Gen. 04)	Auxiliary Generator; Capstone Microturbine	2004	80 HP	N/A
<u>002-06*</u>	<u>AUX06</u>	<u>Generac Model QT080 Natural Gas-Fired Emergency Generator, SI 4-stroke lean-burn, emergency</u>	<u>2012</u>	<u>80 kW</u> <u>128 HP</u>	<u>None</u>
005-04*	BLR02 (Boiler 02)	Boiler; Cleaver Brooks MTF700-1250-60	2004	1.25 MMBtu/hr	N/A
006-02*	TUR02	Solar Taurus 60 Turbine	2008	8175 HP	N/A
TK1	TK1	Horizontal, above ground tank containing Wastewater	2004	1,000 gallon	N/A
TK2	TK2	Horizontal, above ground tank containing Pipeline Fluids	2004	1,000 gallon	N/A
TK3	TK3	Horizontal, above ground tank containing Ethylene Glycol	2004	220 gallon	N/A
Lewis Wetzel Station					
001-03*	EN03	Caterpillar Model 3612 Compressor Engine	2011	3,550 HP	CC1
002-05*	AUX05	Cummins Model KTA19 CSLB Auxiliary Generator	2011	530 HP	None
005-05*	BLR05	Bryan Model RV 450W-FDG Boiler	2011	4.5 MMBtu/hr	None
CC1	CC1	Catalytic Converter	2011	N/A	N/A

* This equipment burns or combusts pipeline quality natural gas only.

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
R13-2555 <u>BA</u>	<u>September 17, 2012</u> May 21, 2007
R13-2870 <u>A</u>	<u>August 30, 2012</u> February 14, 2011

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§30-2.12.). 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	PM₁₀	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	SO₂	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		
mmft³/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§30-2.39]

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. 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. and 45CSR38]

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. When emissions on an annual basis of one or more of the greenhouse gases listed below are greater than the *de minimis* amounts listed below, all greenhouse gases emitted above the *de minimis* amounts shall be reported to the Secretary under 45CSR§42-4. (see Section 3.5.):

Greenhouse Gas Compound	tons/year
carbon dioxide	10,000
methane	476
nitrous oxide	32.6
hydrofluorocarbons	0.855
perfluorocarbons	1.09
sulfur hexafluoride	0.42

[45CSR§42-3.1., State-Enforceable only.]

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

[45CSR§17-3.1; State Enforceable Only]

- 3.1.11. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

[45CSR§2-3.1, 45CSR13, R13-2555, 4.1.76 and R13-2870, 6.1.1] [RBR01, HTR01, BLR02, BLR05]

- 3.1.12. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

[45CSR13, R13-2870, 4.1.2]

3.2. Monitoring Requirements

- 3.2.1. None.

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such

test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- 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, R13-2555, 4.4.1 and R13-2870, 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. For the purposes of determining compliance with maximum fuel limit set forth in Sections 7.1.2, 7.1.3, 7.1.4 and 9.1.3 the applicant shall maintain a monthly record of the quantity of natural gas burned by the turbine, the three emergency generators (combined) and the boilers. Such records shall be retained by the permittee for at least five (5) years and shall be certified upon request by the Director. Certified records shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-2555, 4.4.4 and 45CSR§30-5.1.c] [AUX02, AUX03, AUX04, TUR02, BLR02, BLR05]

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 certification to the USEPA as required in 3.5.5 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, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

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

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with 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 annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[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.
[45CSR§30-5.1.c.3.A.]
- 3.5.7. **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. 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 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.]

- 3.5.10. **Greenhouse Gas Reporting Requirements.** When applicable, as determined in permit section 3.1., greenhouse gas emissions shall be reported pursuant to 45CSR§42-4. including the following:

- a. In accordance with a reporting cycle provided by the Secretary, affected sources shall report to the Secretary the quantity of all greenhouse gases emitted above *de minimis* amounts in the years specified by the Secretary.

[45CSR§42-4.1., State-Enforceable only.]

- b. Affected sources shall only be required to report annual quantities of anthropogenic non-mobile source greenhouse gases emitted at the stationary source, and shall not be required to report biogenic emissions of greenhouse gases.

[45CSR§42-4.2., State-Enforceable only.]

- c. Reports of greenhouse gas emissions submitted to the Secretary under 45CSR§42-4. shall be signed by a responsible official and shall include the following certification statement: "I, the undersigned, hereby certify that the data transmitted to the West Virginia Department of Environmental Protection is true, accurate, and complete, based upon information and belief formed after reasonable inquiry."

[45CSR§42-4.5., State-Enforceable only.]

3.6. Compliance Plan

- 3.6.1. None.

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
- a. None.

3.8. Emergency Operating Scenario

For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

- a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
- b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
- c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
- d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) days;
- e. The permittee must provide written notification to the Director within five (5) days of the replacement. This notification must contain:
- i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
 - ii. Identification of the engine(s) being temporarily replaced;
 - iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
 - iv. Projected duration of the replacement engine(s); and
 - v. The appropriate certification by a responsible official.

[45CSR§30-12.7]

4.0 Source-Specific Requirements for Hastings Station Heater [HTR01]

4.1 Limitations and Standards

- 4.1.1. No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air in excess of 0.90 pounds per hour.
[45CSR§2-4.1.b]
- 4.1.2. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air in excess of 31.0 pounds per hour.
[45CSR§10-3.1.e]

4.2 Monitoring Requirements

- 4.2.1. None.

4.3 Testing Requirements

- 4.3.1. None.

4.4 Recordkeeping Requirements

- 4.4.1. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
[45CSR§2-8.3.c]

4.5 Reporting Requirements

- 4.5.1. None.

4.6 Compliance Plan

- 4.6.1. None.

5.0 Source-Specific Requirements for Hastings Station Dehydration Unit [DEHY, DEHY01]

5.1 Limitations and Standards

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

Emissions (lb/hr) = F x 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

Calculation for PM Emissions:

$$(5.43) \times (73.0 \text{ cf/min}) \times (60 \text{ min/hr}) \times (0.04602 \text{ lb/cf}) \times (\text{ton}/2000 \text{ lb}) \\ = 0.5473 \text{ lb/hr}$$

[45CSR§6-4.1][DEHY]

- 5.1.2. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.

[45CSR§6-4.3][DEHY]

- 5.1.3. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.

[45CSR§6-4.5][DEHY]

- 5.1.4. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[45CSR§6-4.6][DEHY]

- 5.1.5. The permittee has defined the facility as a minor source of HAPs for existing source MACT applicability purposes. As a result, the Dehydration unit shall not emit HAPs to the atmosphere equaling or exceeding the major source thresholds of 10 tpy of any individual HAP and 25 tpy of aggregate HAPs. Therefore, the subject facility shall conduct monitoring, testing, and reporting as specified below (requirements 5.2.1 and 5.3.1) in order to provide adequate justification for maintaining minor source status. This requirement shall in no way restrict the permittee from conducting more frequent testing to quantify emissions increases.

[40 C.F.R. 63 Subpart HH 40CFR§63.10(b)(3)] [DEHY01]

- 5.1.6. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a through 45CSR§10-4.1.e.

[45CSR§10-4.1] [DEHY01, DEHY]

- 5.1.7. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be

economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.

[45CSR§10-5.1] [DEHY01, DEHY]

- 5.1.8. Compliance with the allowable hydrogen sulfide concentration limitations for combustion sources set forth in 45CSR10 (5.1.7) shall be based on a block three (3) hour averaging time.

[45CSR§10-5.4] [DEHY01, DEHY]

- 5.1.9. Pursuant to 40 CFR 63 Subpart HH *National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*, Dehydration unit at the facility is subject to the following limitations and standards given below:

§ 63.760 Applicability and designation of affected source

(f)(5) The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences before July 8, 2005, shall achieve compliance with the provisions of this subpart no later than the dates specified in paragraphs (f)(5)(i) or (ii) of this section, except as provided for in §63.6(i) Extension of Compliance with Emission Standards.

(ii) If the affected area source is not located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 5, 2009.

[45CSR34; 40 C.F.R. 63 Subpart HH §63.760(f)(5)(ii)] [DEHY]

§ 63.764 General standards.

- (a) Table 2 of the Part 63 Subpart HH specifies the provisions of subpart A (General Provisions) of Part 63 that apply and those that do not apply to owners and operators of affected sources subject to this subpart.
- (b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in §63.13. Reports may be submitted on electronic media.
- (d) Except as specified in paragraph (e)(1) of this requirement, the owner or operator of an affected source located at an existing or new area source of HAP emissions shall comply with the applicable standards specified in paragraph (d) of this section.

(2) Each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in §63.761) shall comply with paragraphs (d)(2)(i) through (iii) of this requirement.

- (i) Determine the optimum glycol circulation rate using the following equation:

$$L_{OPT} = 1.15 * 3.0 \frac{\text{gal TEG}}{\text{lb H}_2\text{O}} * \left(\frac{F * (I - O)}{24 \text{ hr/day}} \right)$$

Where:

L_{OPT} = Optimal circulation rate, gal/hr.

F = Gas flowrate (MMSCF/D).

I = Inlet water content (lb/MMSCF).

O = Outlet water content (lb/MMSCF).

3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal TEG/lb H₂O).

1.15 = Adjustment factor included for a margin of safety.

(ii) Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with paragraph (d)(2)(i) of this section. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with paragraph (d)(2)(i), the owner or operator must calculate an alternate circulation rate using GRI-GLYCalc™, Version 3.0 or higher. The owner or operator must document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this documentation with the initial notification in accordance with §63.775(c)(7).

(iii) Maintain a record of the determination specified in paragraph (d)(2)(ii) in accordance with the requirements in §63.774(f) and submit the Initial Notification in accordance with the requirements in §63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with paragraph (d)(2)(i) or (ii) of this section and submit the information specified under §63.775(c)(7)(ii) through (v).

(e) *Exemptions.* (1) The owner or operator is exempt from the requirements of paragraph (c)(1) and (d) of §63.764 if the criteria listed in paragraph (e)(1)(ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1).

(ii) The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in §63.772(b)(2) of this subpart.

[45CSR34; 40 C.F.R. 63 Subpart HH §63.764(a), (b), (d), (e)] [DEHY01]

- 5.1.10. If the annual emissions of benzene from the DEHY unit for 2009 or any year thereafter equals or exceeds 0.90 megagram per year (1 tpy) as calculated per §63.772(b)(2) (requirement 5.3.2), the permittee shall comply with the section d(2)(i) through (iii) of the §63.764 (requirement 5.1.9).
[45CSR§30-12.7]

5.2. Monitoring Requirements

- 5.2.1. In order to demonstrate compliance with the minor source status claimed within 5.1.5, as well as 0.90 megagram per year benzene exemption provided under 5.1.9, the permittee shall use GRI-GLYCalc V4 or higher to estimate emissions from the dehydration system. The dehydration system must be accurately defined by monitoring and recording actual operating parameters associated with the dehydration system. The WV Division of Air Quality recommends the following actual operating parameters be measured in order to satisfy this monitoring requirement when using the Gas Analysis and Process Data_GLYCalc emission modeling method:

- Natural Gas Flowrate: annual, per day, and maximum design capacity (MMscf/time)

- Dry Gas water content at a point directly after exiting the dehydration column and before any additional separation points
- Absorber temperature and pressure

As an alternative to the “Gas Analysis and Process Data”, emission estimating method discussed above, the permittee may elect to incorporate the following alternative calculation methods as provided by GLYCalc V4: [Gas Analysis and ARL Method (R/L+Gas)] or the [GRI ARL Method (for TEG units only)]

These alternative methods can be used to demonstrate compliance with 5.1.5, provided emissions are determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1). Additionally, the alternative methods shall also adhere to the recommendations for sampling and analysis of the wet glycol stream as presented in the GLYCalc Technical Reference User Manual and Handbook V4 when applicable.

[45CSR§30-5.1.c]

- 5.2.2. Visual emission checks of each emission point specified shall be conducted monthly in accordance with 40 C.F.R. 60 Appendix A Method 22. If during these checks or at any other time visible emissions are observed, compliance shall be determined by conducting tests in accordance with Method 9 of 40 C.F.R. 60, Appendix A. Records shall be maintained on site stating the date and time of each visible emission check and whether visible emissions were observed. Visible emission checks shall not be required during start-ups, shut-downs and malfunctions.

[45CSR§30-5.1.c] [DEHY]

- 5.2.3. At a minimum of once per year, sample and analyze the inlet pipeline natural gas stream to the station utilizing gas chromatography for the presence of sulfur. Proof of compliance with the 2000 ppm_v limit will be considered demonstrated if the gas chromatograph shows a total sulfur content of 11.92 grains/100ft³ or less. Records shall be maintained on site or at a reasonably available location for a period of no less than five (5) years stating the date and time of analysis and the sulfur content of the gas sampled.

[45CSR§30-5.1.c] [DEHY, DEHY01]

- 5.2.4. At a minimum of once per year, sample and analyze the inlet gas stream to the station utilizing gas chromatography for the presence of H₂S. Proof of compliance with the 50 grains/100ft³ limit will be considered demonstrated if the gas chromatograph shows a total H₂S content of 0.751 grains/100ft³ or less. Records shall be maintained on site or at a reasonably available location for a period of no less than five (5) years stating the date and time of analysis and the hydrogen sulfide content of the gas sampled.

[45CSR§30-5.1.c] [DEHY, DEHY01]

5.3. Testing Requirements

- 5.3.1. Within 180 days of permit issuance, and once within the last 2 years of this permit term, prior to submitting the permit renewal application, the permittee shall determine the composition of the wet natural gas by sampling in accordance with GPA Method 2166 and analyzing according to extended GPA Method 2286 analysis as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration contactor column, but after any type of separation device, in accordance with GPA method 2166. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date.

[45CSR§30-5.1.c]

- 5.3.2. Pursuant to 40 CFR 63 Subpart HH *National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*, Dehydration unit at the facility is subject to the following limitations and standards given below:

§ 63.772 Test methods, compliance procedures, and compliance demonstrations.

(b) *Determination of glycol dehydration unit flowrate or benzene emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate or benzene emissions to meet the criteria for an exemption from control requirements under §63.764(e)(1) (requirement 5.1.9).

(2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) of this requirement. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit.

Compliance with this monitoring and testing requirement will be demonstrated if compliance with the monitoring specified within 5.2.1 and the testing provision of 5.3.1 is demonstrated.

[45CSR34; 40 C.F.R. 63 Subpart HH §63.772 (b)(2)(i)] [DEHY01]

5.4. Recordkeeping Requirements

5.4.1. For the purpose of demonstrating compliance with 5.1.2 & 5.2.2, the permittee shall maintain records of all monitoring data 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, and the results of the check(s). 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. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (O/S) or equivalent.

[45CSR§30-5.1.c]

5.4.2. Pursuant to 40 CFR 63 Subpart HH *National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*, Dehydration unit at the facility is subject to the following limitations and standards given below:

§ 63.774 Recordkeeping requirements

(d) (1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in §63.764(e)(1)(i) or §63.764(e)(1)(ii) (requirement 5.1.9) shall maintain the records specified in paragraph (d)(1)(ii) of this requirement, as appropriate, for that glycol dehydration unit.

(ii) The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with §63.772(b)(2) (requirement 5.3.2).

[45CSR34; 40 C.F.R. 63 Subpart HH §63.774 (d)(1)(ii)] [DEHY01]

- 5.4.3. The permittee shall calculate and maintain a record of actual uncontrolled emissions (in terms of individual and total HAP emissions per year) based on the daily annual average throughput processed by the dehydration unit. The annual emission estimates shall also incorporate the annual average operating parameters required to be monitored by 5.2.1. The records of all associated monitoring (5.2.1) and testing (5.3.1) used to support and calculate the emission estimates shall also be maintained as part of this requirement. For any given year, if the testing requirement within 5.3.1 does not result in obtaining a wet gas analysis for that year then the most recent wet gas analysis may be used.

Compliance with this recordkeeping requirement also streamlines compliance with the requirement 5.4.2

[45CSR§30-5.1.c] [DEHY01]

5.5. Reporting Requirements

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

[45CSR§30-5.1.c]

- 5.5.2. The permittee shall submit by March 31st of the year, following the year of wet gas testing required by 5.3.1, an emission summary for the dehydration unit (DEHY01), which incorporates the wet gas testing results. The permittee shall also supply a copy of the most recent report within the facility's subsequent Title V renewal application. These reports shall include an actual annual average emission estimate for the calendar year of the sample, modeled using GLYCalc V3 or higher software, which incorporates site specific parameters measured in accordance with 5.2.1. The permittee shall also supply all supporting documentation where site specific operating parameters are tabulated to define the annual average values. The report shall also incorporate a copy of the lab analysis obtained from the wet gas testing as well as a description of how and where the sample was taken. The report shall include a reference to all sampling and analytical methods utilized. Additionally, the permittee shall identify where the compressor station is located with respect to a custody transfer point, which is referenced within 40 C.F.R 63, subpart HH as the point where the gas enters into a natural gas transmission and/or storage pipeline. This report shall be signed by a responsible official upon submittal.

[45CSR§30-5.1.c]

5.6. Compliance Plan

- 5.6.1. None.

6.0 Source-Specific Requirements for Hastings Station engines [EN01, EN02 and AUX01]

6.1. Limitations and Standards

- 6.1.1. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following limitations and standards given below:

§ 63.6595 *When do I have to comply with this subpart?*

(a) *Affected sources.* (1) If you have an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013. [40 C.F.R. 63 Subpart ZZZZ §63.6595(a)(1)]

§ 63.6603 *What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?*

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart. [40 C.F.R. 63 Subpart ZZZZ §63.6603(a)]

Table 2d to Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each . . .	You must meet the following requirement, except during periods of startup . . .
5. Emergency stationary SI RICE [AUX1] ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
6. Non-emergency, non-black start 2SLB stationary RICE [EN01, EN02]	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; ¹
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

¹Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

²If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the

emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

§ 63.6605 *What are my general requirements for complying with this subpart?*

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 C.F.R. 63 Subpart ZZZZ §63.6605] [EN01, EN02, AUX01]

§ 63.6625 *What are my monitoring, installation, collection, operation, and maintenance requirements?*

e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(3) An existing emergency stationary RICE located at an area source of HAP emissions; **[AUX1]**

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions; **[EN01, EN02]**

(f) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed. **[AUX1]**

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table...2d to this subpart apply. **[EN01, EN02, AUX1]**

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items... 5, 6.. of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table.. 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table... 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the

results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [EN01, EN02, AUX01]

[40 C.F.R. 63 Subpart ZZZZ §63.6625]

§ 63.6640 *How do I demonstrate continuous compliance with the emission limitations and operating limitations?*

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart. [EN01, EN02, AUX01]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by ...
9.Existing emergency stationary RICE located at an area source of HAP [AUX01], existing non-emergency 2SLB stationary RICE located at an area source of HAP [EN01, EN02]	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE. [EN01, EN02, AUX01]

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations. [AUX01]

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance

checks and readiness testing of such units is limited to 100 hours per year. 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 RICE beyond 100 hours per year. [AUX01]

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power. [AUX01]

[40 C.F.R. 63 Subpart ZZZZ §63.6640]

§63.6665 What parts of the General Provisions apply to me?

Table 8 to subpart ZZZZ shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

[40 C.F.R. 63 Subpart ZZZZ §63.6665 and §63.6645(a)(5)] [EN01, EN02, AUX01]

6.2. Monitoring Requirements

- 6.2.1. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following monitoring requirements given below:

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[40 C.F.R. 63 Subpart ZZZZ §63.6635] [EN01, EN02, AUX01]

6.3. Testing Requirements

6.3.1. None

6.4. Recordkeeping Requirements

6.4.1. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following recordkeeping requirements given below:

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section. **[EN01, EN02, AUX01]**

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section. **[EN01, EN02, AUX01]**

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you. **[EN01, EN02, AUX01]**

Table 6 to Subpart ZZZZ of Part 63— Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

<p>9. ...existing emergency stationary RICE located at an area source of HAP [AUX01],</p> <p>existing non-emergency 2SLB stationary RICE located at an area source of HAP, [EN01, EN02]</p>	<p>a. Work or Management practices</p>	<p>i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or</p> <p>ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions</p>
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(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(2) An existing stationary emergency RICE. [AUX01]

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart. [EN01, EN02, AUX01]

(f) If you own or operate any of the stationary RICE in paragraph (f)(2) of this section, you 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. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines. [AUX01]

[40 C.F.R. 63 Subpart ZZZZ §63.6655]

§ 63.6660 *In what form and how long must I keep my records?*

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[40 C.F.R. 63 Subpart ZZZZ §63.6660] [EN01, EN02, AUX01]

6.5. Reporting Requirements

- 6.5.1. See footnote (2) of the Table 2d (Requirement 6.1.1) [AUX01]

6.6. Compliance Plan

- 6.6.1. None.

7.0. Source-Specific Requirements for Mockingbird Hill Station [AUX02, AUX03, AUX04, AUX06, BLR02, TUR02]

7.1. Limitations and Standards

7.1.1. Except during startup and shut down, emissions from the (following units at the) facility shall not exceed the following:

ID No.	NO _x		CO		VOC		PM ₁₀		SO ₂		HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Turbine 006-02	5.12	22.43	6.24	27.33	1.79	7.84	2.69	11.79	0.22	0.96	0.07	0.28
Aux Gen. 02	0.03	0.13	0.08	0.35	0.01	0.01	0.03	0.15	0	0	0.01	0.02
Aux Gen. 03	0.03	0.13	0.08	0.35	0.01	0.01	0.03	0.15	0	0	0.01	0.02
Aux Gen. 04	0.03	0.13	0.08	0.35	0.01	0.01	0.03	0.15	0	0	0.01	0.02
Boiler 02	0.46	2.02	0.18	0.81	0.08	0.36	0.04	0.17	0.01	0.01	0	0

[45CSR13, R13-2555, 4.1.1] [TUR02, AUX02, AUX03, AUX04, BLR02]

7.1.2. The turbine 006-02 shall not combust more than 598.99 MMCF/yr of fuel (natural gas) cumulatively on a rolling 12 month basis.

[45CSR13, R13-2555, 4.1.2] [TUR02]

7.1.3. The three auxiliary generators 002-02, 002-03 and 002-04 combined shall not combust more than 21 x 10⁶ ft³/yr of fuel (natural gas) cumulatively on a rolling 12 month basis.

[45CSR13, R13-2555, 4.1.3] [AUX02, AUX03, AUX04]

7.1.4. The boiler identified in permit application R13-2555 as 005-04 shall not combust more than 44.9 x 10⁶ ft³/ yr of fuel (natural gas) cumulatively on a rolling 12 month basis.

[45CSR13, R13-2555, 4.1.4] [BLR02]

7.1.5. The sulfur content of the gas being fired at the facility shall not exceed 0.2 grains/100 scf.

[45CSR13, R13-2555, 4.1.5]

7.1.6. Turbine 006-02, Emission Point ID No. TUR02, shall not exceed 25 ppm NO_x at 15% Oxygen.

[45CSR16; 45CSR13, R13-2555, 4.1.10~~9~~ and 40 C.F.R. 60 Subpart KKKK §60.4320] [TUR02]

7.1.7. The facility must operate and maintain Turbine 006-02 and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

[45CSR16; 45CSR13, R13-2555, 4.1.11~~10~~ and 40 C.F.R. 60 Subpart KKKK §60.4333(a)] [TUR02]

7.1.8. The facility shall maintain the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur of less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for

noncontinental areas, has potential sulfur emissions of less than 180 ng SO₂/J (0.42 lbSO₂/MMBtu) heat input for non-continental areas. [45CSR16; 45CSR13, R13-2555, 4.1.1244 and 40 C.F.R. 60 Subpart KKKK, 40CFR§60.4365(a)] [TUR02]

7.1.9. The emergency generator, identified as 002-06, is subject to the following requirements:

- a. The unit shall be a Generac Model QT080 80 kilowatt (kW), 128 horsepower (hp) 4-stroke lean-burn natural gas-fired engine and shall not operate in excess of 500 hours per year based on a rolling twelve month total.
- b. The maximum emissions from the Auxiliary Generator shall not exceed the limits given in the following table:

<u>Pollutant</u>	<u>PPH</u>	<u>TPY</u>
<u>CO</u>	<u>20.57</u>	<u>5.14</u>
<u>NO_x</u>	<u>1.14</u>	<u>0.29</u>
<u>VOC</u>	<u>0.39</u>	<u>0.10</u>

- c. The emergency generator shall meet the definition of "Emergency stationary internal combustion engine" as given under §60.4248.
[40 C.F.R. §60.4248 and 45CSR16]

[45CSR13, R13-2555, 4.1.6 (a), (b), (d) and 40 C.F.R. 60 Subpart JJJJ, §60.4248 and 45CSR16]

7.1.10. Pursuant to 40 C.F.R. 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines, the facility is subject to the following provision given below:

§ 63.6590 What parts of my plant does this subpart cover?

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets the criteria in paragraph (c)(1) of this section 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 this part.

(1) a new or reconstructed stationary RICE located at an area source;

[40 C.F.R. 63 Subpart ZZZZ, §63.6590(c)] [AUX06]

7.1.11. Pursuant to 40 CFR 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, the facility is subject to the following limitations and standards given below:

§ 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(e) 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 40 C.F.R. 60 Subpart JJJJ for their stationary SI ICE.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4233(e); and 45CSR13, 13-2555, 4.1.6(c)] [AUX06]

Table 1 to Subpart JJJJ of Part 60

<u>Engine type and fuel</u>	<u>Maximum engine power</u>	<u>Manufacture date</u>	<u>Emission standards^a</u>					
			<u>g/HP-hr</u>			<u>ppmvd at 15% O₂</u>		
			<u>NO_x</u>	<u>CO</u>	<u>VOC^d</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC^d</u>
<u>Emergency</u>	<u>25<HP<130</u>	<u>1/1/2009</u>	<u>^c10</u>	<u>387</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

^aOwners 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 O₂.

^cThe emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x+ HC.

^dFor purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, Table 1][AUX06]

(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of §60.4233.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4233(h)][AUX06]

§ 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4234][AUX06]

§ 60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4236(c)][AUX06]

§ 60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4237(c)]

§ 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you

must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4243(a)(1)][AUX06]

(b) 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 (b)(1) and (2) of this section.

(1) 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.

(2) 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)(2)(i) and (ii) of this section.

(i) 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.

(ii) 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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4243(b); and 45CSR13, R13-2555, 4.2.2 & 4.2.3][AUX06]

(d) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial

arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4243(d)][AUX06]

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

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4243 (e)][AUX06]

- (f) 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 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 CFR 94.11(a).

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4243(f)][AUX06]

- (g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4243(g)][AUX06]

7.2.1. Monitoring Requirements

- 7.2.1. ~~None.~~ For the purposes of demonstrating compliance with the maximum usage limits set forth in 7.1.9(a), the permittee shall maintain monthly and rolling twelve month records of the hours of operation of the emergency generator.

[45CSR13, R13-2555, 4.2.1][AUX06]

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

[45CSR13, R13-2555, 3.2.1]

7.3.2. Testing Requirements

- 7.3.1. The facility must perform annual performance test in accordance with §60.4400 to demonstrate continuous compliance for the emission limitation set forth in 40CFR60.4320 listed in Table 1 of 40 C.F.R. 60 Subpart KKKK. If the NO_x emission result from the performance test is less than or equal to 75 percent of the 25 ppm NO_x emission limit for the turbine, the facility may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, the facility must resume annual performance tests.

[45CSR16; 45CSR13, R13-2555, 4.3.2 and 40 C.F.R. 60 Subpart KKKK, §60.4340(a)][TUR02]

- 7.3.2. As an alternative to 40CFR§60.4340(a), the facility may install, calibrate, maintain and operate one of the following continuous monitoring systems:
- (1) Continuous emission monitoring as described in §§60.4335(b) and 60.4345, or
 - (2) Continuous parameter monitoring as follows:
 - (a) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, the permittee must define parameters indicative of the unit's NO_x formation characteristics, and the permittee must monitor these parameters continuously.
 - (b) For any lean premix stationary combustion turbine, the facility must continuously monitor the appropriate parameters to determine whether the unit is operating in low NO_x-mode.
 - (c) For any turbine that uses SCR to reduce NO_x emissions, the facility must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
 - (d) For affected units that are also regulated under 40 C.F.R. Part 75, with state approval the facility can monitor the NO_x emission rate using the methodology in appendix E to 40 C.F.R. Part 75, or the low mass emissions methodology in §75.19, the requirements of Section 7.3.2 may be met by performing the parametric monitoring described in section 2.3 of 40 C.F.R. Part 75 appendix E or in §75.19(c)(1)(iv)(H).

[45CSR16; 45CSR13, R13-2555, 4.3.34 and 40 C.F.R. 60 Subpart KKKK, §60.4340(b)][TUR02]

- 7.3.3. (a) You must conduct an initial performance test, as required in §60.8. Subsequent NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).
- (1) There are two general methodologies that you may use to conduct the performance tests. For each test run:
 - (i) Measure the NO_x concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of this part. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of 40 C.F.R. 60, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_x emission rate:

$$E = \frac{1.194 \times 10^{-7} * (NO_x)_c * Q_{std}}{P}$$

Where:

E = NO_x emission rate, in lb/MWh

1.194×10^{-7} = conversion constant, in lb/dscf-ppm

(NO_x)_c = average NO_x concentration for the run, in ppm

Q_{std} = stack gas volumetric flow rate, in dscf/hr

P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for

combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or

- (ii) Measure the NO_x and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of 40 C.F.R. 60 to calculate the NO_x emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the NO_x emission rate in lb/MWh.
- (2) Sampling traverse points for NO_x and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.
- (3) Notwithstanding paragraph (a)(2) of this section, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of 40 C.F.R. 60 if the following conditions are met:
- (i) You may perform a stratification test for NO_x and diluent pursuant to
 - (A) [Reserved], or
 - (B) The procedures specified in section 6.5.6.1(a) through (e) of appendix A of 40 C.F.R. Part 75.
 - (ii) Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:
 - (A) If each of the individual traverse point NO_x concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5ppm or ±0.5 percent CO₂ (or O₂) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO_x concentration during the stratification test; or
 - (B) For turbines with a NO_x standard greater than 15 ppm @ 15% O₂, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_x concentrations is within ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3ppm or ±0.3 percent CO₂ (or O₂) from the mean for all traverse points; or
 - (C) For turbines with a NO_x standard less than or equal to 15 ppm @ 15% O₂, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_x concentrations is within ±2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±1ppm or ±0.15 percent CO₂ (or O₂) from the mean for all traverse points.

- (b) The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.
- (1) If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.
 - (2) For a combined cycle and CHP turbine systems with supplemental heat (duct burner), you must measure the total NO_x emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test.
 - (3) If water or steam injection is used to control NO_x with no additional post-combustion NO_x control and you choose to monitor the steam or water to fuel ratio in accordance with §60.4335, then that monitoring system must be operated concurrently with each EPA Method 20 or EPA Method 7E run and must be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable §60.4320 NO_x emission limit.
 - (4) Compliance with the applicable emission limit in §60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO_x emission rate at each tested level meets the applicable emission limit in §60.4320.
 - (5) If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405) as part of the initial performance test of the affected unit.
 - (6) The ambient temperature must be greater than 0°F during the performance test.

[45CSR16; 45CSR13, R13-2555, 4.3.43 and 40 C.F.R. 60 Subpart KKKK, 40CFR§60.4400][TUR02]

7.3.4. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with any emission limitations established in this permit and/or applicable regulations.

[45CSR13, R13-2555, 4.3.1]

7.3.5. The permittee shall comply with all applicable testing requirements as given under 40 CFR 60, Subpart JJJJ, §§60.4244(a) through (g).

[45CSR16; 40 C.F.R. §§60.4244(a) through (g); and 45CSR13, R13-2555, 4.3.5][AUX06]

7.4.3. Recordkeeping Requirements

7.4.1. See facility-wide requirement 3.4.4.

7.4.2. Pursuant to 40 CFR 60 Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, the facility is subject to the following recordkeeping provisions given below:

§ 60.4245 *What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?*

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
- (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.
- (b) ...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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §§60.4245(a), (b); and 45CSR13, R13-2555, 4.4.5][AUX06]

7.5.4. Reporting Requirements

- 7.5.1. The facility must submit a written report of the results of each performance test, conducted in accordance with §60.4340(a), before the close of business on the 60th day following the completion of the performance test.
[45CSR16; 45CSR13, R13-2555, 4.5.1 and 40 C.F.R. 60 Subpart KKKK, 40CFR§60.4375(b)] [TUR02]
- 7.5.2. All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.
[45CSR16; 45CSR13, R13-2555, 4.5.2 and 40 C.F.R. 60 Subpart KKKK, 40CFR§60.4395][TUR02]
- 7.5.3. The permittee shall comply with all applicable reporting requirements as given under 40 CFR 60, Subpart JJJJ, §60.4245(d).
[45CSR16; 40 C.F.R. 60 Subpart JJJJ, §60.4245(d); and 45CSR13, R13-2555, 4.5.3][AUX06]

7.6.5. Compliance Plan

- 7.6.1. None.

8.0. Source-Specific Requirements for Lewis Wetzel Station engines [EN03, AUX05]

8.1. Limitations and Standards

8.1.1. The quantity of natural gas that shall be consumed in the 3,550 hp natural gas fired reciprocating engine, Caterpillar Model 3612 (001-03) shall not exceed 27,842 cubic feet per hour or 243.89 mmcf/yr respectively.

[45CSR13, R13-2870, 5.1.1] [EN03]

8.1.2. The quantity of natural gas that shall be consumed in the 530 hp natural gas fired reciprocating engine, Cummins, Model KTA19GSLB (002-05) shall not exceed 4,351 cubic feet per hour or 2.18 mmcf/yr respectively.

[45CSR13, R13-2870, 5.1.2] [AUX05]

8.1.3. Maximum emissions from the 3,550 hp natural gas fired reciprocating engine, Caterpillar Model 3612 (001-03) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
001-03	Nitrogen Oxides	3.92	17.14
	Carbon Monoxide	15.07	65.99
	Volatile Organic Compounds	3.01	13.17
	Formaldehyde	1.88	8.23

[45CSR13, R13-2870, 5.1.3] [EN03]

8.1.4. Maximum emissions from the 530 hp natural gas fired reciprocating engine, Cummins, Model KTA19GSLB (002-05) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
002-05	Nitrogen Oxides	1.70	0.43
	Carbon Monoxide	1.76	0.44
	Volatile Organic Compounds	0.22	0.06
	Formaldehyde	0.22	0.06

[45CSR13, R13-2870, 5.1.4] [AUX05]

8.1.5. Requirements for Use of Catalytic Reduction Devices

- a. Lean-burn natural gas compressor engines equipped with selective catalytic reduction (SCR) air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/SCR combination

under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine, ammonia injection and SCR device, monitor emission levels downstream of the catalyst element and limit ammonia slip to less than 10 ppm;

- b. The closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and
- c. No person shall knowingly:
 - 1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of R13-2870;
 - 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 R13-2870; or
 - 3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

[45CSR13, R13-2870, 5.1.5]

- 8.1.6. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the air pollution control equipment listed in Section 1.1 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, R13-2870, 4.1.3] [EN03]

- 8.1.7. Pursuant to 40 CFR 63 Subpart *ZZZZ National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following provision given below:

§ 63.6590 What parts of my plant does this subpart cover?

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets the criteria in paragraph (c)(1) of this section 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 this part.

- (1) a new or reconstructed stationary RICE located at an area source;

[40 C.F.R. 63 Subpart ZZZZ §63.6590(c)] [EN03, AUX05]

- 8.1.8. Pursuant to 40 CFR 60 Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, the facility is subject to the following limitations and standards given below:

§ 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(e) 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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4233(e) and 45CSR13, R13-2870, 7.2.1]

(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of §60.4233.

[45CSR16; 40CFR§60.4233(h) and 45CSR13, R13-2870, 7.2.3]

§ 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4234 and 45CSR13, R13-2870, 7.2.4]

§ 60.4236 What is the deadline for importing or installing stationary SI ICE produced in the previous model year?

(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4236(b) and 45CSR13, R13-2870, 7.3.1] [EN03]

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4236(c) and 45CSR13, R13-2870, 7.3.2] [AUX05]

§ 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(c) 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 (b)(1) and (2) of this section.

(1) 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.

(2) 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)(2)(i) and (ii) of this section.

- (i) 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.
- (ii) 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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4243(b) and 45CSR13, R13-2870, 7.4.1]

- (d) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f).

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4243(c) and 45CSR13, R13-2870, 7.4.2]

- (e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4243(d) and 45CSR13, R13-2870, 7.4.3]

- (f) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. **[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4243(e) and 45CSR13, R13-2870, 7.4.4]**

- (g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. **[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4243(g) and 45CSR13, R13-2870, 7.4.5]**

- (h) If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008,

and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.

- (1) Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4243(h) and 45CSR13, R13-2870, 7.4.6]

8.2. Monitoring Requirements

8.2.1. 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 automatic feedback controller.
 2. Following operating and maintenance recommendations of the catalyst element manufacturer.

[45CSR13, R13-2870, 5.2.1]

- 8.2.2. Pursuant to 40 CFR 60 Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, the facility is subject to the following monitoring provision given below:

§ 60.4237 *What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?*

- (a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §60.4237(a) and 45CSR13, R13-2870, 7.3.4]

8.3. Testing Requirements

- 8.3.1. See Facility-Wide Testing Requirements Section 3.3.
[45CSR13, R13-2870, 5.3.1]

- 8.3.2. Pursuant to 40 CFR 60 Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, the facility is subject to the following testing provisions given below:

§ 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

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

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

Where:

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

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

1.912×10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 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).

- (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:

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

Where:

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

C_d= Measured CO concentration in ppmv.

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

[40CFR§60.4244(e)]

- (g) 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:

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

Where:

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

C_d = VOC concentration measured as propane in ppmv.

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

- (h) 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.

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

Where:

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

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

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

$$C_{i,cor} = RF_i \times C_{i,meas} \quad (\text{Eq. 5})$$

Where:

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

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

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

Where:

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

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §§60.4244(a) through (g) and 45CSR13, R13-2870, 7.5.1]

8.4. Recordkeeping Requirements

- 8.4.1. To demonstrate compliance with section 8.1.1 – 8.1.5, the permittee shall maintain records of the amount of natural gas consumed in each engine and the hours of operation of each engine. 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, R13-2870, 5.4.1]

- 8.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, 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, R13-2870, 4.1.4] [EN03]

- 8.4.3. Pursuant to 40 CFR 60 Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, the facility is subject to the following recordkeeping provisions given below:

§ 60.4245 *What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?*

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
 - (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.
- (b) 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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §§60.4245(a), (b) and 45CSR13, R13-2870, 7.6.1]

8.5. Reporting Requirements

8.5.1. See Facility-Wide Reporting Requirements Section 3.5.
[45CSR13, R13-2870, 5.5.1]

8.5.2. Pursuant to 40 CFR 60 Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, the facility is subject to the following reporting provisions given below:

§ 60.4245 *What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?*

- (c) 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 (c)(1) through (5) of this section.
 - (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.
- (d) 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.

[45CSR16; 40 C.F.R. 60 Subpart JJJJ §§60.4245(c), (d) and 45CSR13, R13-2870, 7.6.1]

8.6. Compliance Plan

- 8.6.1. None.

9.0. Source-Specific Requirements for Lewis Station boiler [BLR05]

9.1. Limitations and Standards

9.1.1. Maximum Design Heat Input. The maximum design heat input for the Bryan Steam Corp. RV 450W-FDG Boiler (005-05) shall not exceed 4.5MMBtu/hr.
[45CSR13, R13-2870, 6.1.3]

9.1.2. Maximum emissions from the 4.5 MMBtu/hr Bryan Steam Corp. RV 450W-FDG Boiler BLR05 (005-05) shall not exceed the following limits:

Emission Point ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
BLR05	Nitrogen Oxides	0.47	2.06
	Carbon Monoxide	0.40	1.73

[45CSR13, R13-2870, 6.1.4]

9.1.3. Boiler BLR05 shall not combust more than 38.65×10^6 ft³/ yr of fuel (natural gas) cumulatively on a rolling 12 month basis.

Compliance with this requirement will demonstrate compliance with the requirement 9.1.2.

[45CSR§30-12.7]

9.2. Monitoring Requirements

9.2.1. None.

9.2. Testing Requirements

9.3.1. None.

9.3. Recordkeeping Requirements

9.4.1. See facility-wide requirement 3.4.4.

9.4. Reporting Requirements

9.5.1. None

9.6. Compliance Plan

9.6.1. None