

West Virginia Department of Environmental Protection

Division of Air Quality

Joe Manchin, III
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

General Permit to Operate Natural Gas Compressor Facilities



Pursuant to

Title V

of the Clean Air Act

Permit No.:

R30-NGGP-2007

John A. Benedict

Director

Issued: June 14, 2007 • Effective: June 14, 2007
Expiration: June 14, 2012 • Renewal Application Due: December 14, 2011

Permit Number: **R30-NGGP-2007**

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.

This Permit covers SIC Codes: Primary – 4922, 1321, 1311.

Permit Writer: U.K.Bachhawat

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

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

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2.0. General Conditions

2.0.1. Applicability

2.0.1.1 The facility is designed and operated for the purpose of gathering, dehydrating, transmitting, processing or compressing natural gas and is included in SIC codes 4922, 1321 & 1311.

[45CSR§30-5.4.]

2.0.1.2. The following types of sources are not eligible for this permit:

- a. Affected sources under the acid rain program (Title IV of the Federal CAA, as amended).
- b. Sources subject to 45CSR19 (LAER) permitting requirements.
- c. Sources with fuel-burning units as defined by 45CSR§2-2.10 with a maximum rated heat input of 100mmBTU/hr or more.
- d. "Chemical Processing Unit" as defined in 45CSR27.
- e. Sources which are subject to 40 C.F.R.60 Subpart LLL (Sweetening Plant) & 40 C.F.R. 63 Subpart HH.
- f. Sources subject to 45CSR21.
- g. Any source which has equipment subject to CAM (Compliance Assurance Monitoring).
- h. Sources subject to NO_x Budget Trading Program.
- i. Sources subject to 40 C.F.R 63 Subpart DDDDD – Boilers and Process Heaters, except for pipeline quality natural gas fired Boilers and Process Heaters less than 100 MMBtu/hr.

[45CSR§30-5.4.]

2.0.1.3. a. West Virginia Division of Air Quality reserves the right to reopen this permit or any authorization issued under this permit if the area in which the facility is located is federally designated as non-attainment for specified pollutants.

b. If subsequently any proposed construction, modification and/or operation does not demonstrate eligibility and/or compliance with the requirements, provisions, standards and conditions of this General Permit, the General Permit registration for the proposed activity shall be denied and an individual permit for the proposed activity shall be required.

c. Notwithstanding the shield provisions of 45CSR§30-5.6, the source shall be subject to enforcement action for operation without a Title V operating permit if the source is later determined not to qualify for the conditions and terms of the general permit.

Note: A source is only subject to an enforcement action under this condition if the source continues to operate without applying for a Title V permit and the source makes a change that does not qualify for the conditions and terms of the general permit.

[45CSR§30-5.4.]

2.0.1.4. A source may apply for coverage under a general permit for some emissions units or activities even if the source must file a source-specific permit application for other emissions units or activities. In the event that both a general permit and a source-specific permit are granted to the same source, the source-specific permit shall incorporate the applicable general permit(s).

a. In the event that a source is issued a general permit for one or more emissions units at a source, any subsequent application for a source-specific permit shall include the source subject to the general permit. The incorporation of the general permit into the source-specific application shall subject the general permit source to all procedures and processes, including public comment, to which the entire application and permit process are subject. The terms and duration of any general permit incorporated under a source-specific permit shall be void upon the issuance of such source-specific permit and the terms and duration of such source-specific permit shall then control.

b. In the event that a source obtains a general permit subsequent to the issuance of a source-specific permit, such general permit shall be applicable only for the remainder of the term of the source-specific permit.

The general permit source shall be included in the renewal application for the source specific permit and subject to all procedures and processes, including public comment, to which the renewal is subject.
[45CSR§30-5.4.e]

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 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	PM₁₀	Particulate Matter less than 10µm in diameter
CBI	Confidential Business Information	pph	Pounds per Hour
CEM	Continuous Emission Monitor	ppm	Parts per Million
CES	Certified Emission Statement	PSD	Prevention of Significant Deterioration
C.F.R. or C.F.R.	Code of Federal Regulations	psi	Pounds per Square Inch
CO	Carbon Monoxide	SIC	Standard Industrial Classification
C.S.R. or CSR	Codes of State Rules	SIP	State Implementation Plan
DAQ	Division of Air Quality	SO₂	Sulfur Dioxide
DEP	Department of Environmental Protection	TAP	Toxic Air Pollutant
FOIA	Freedom of Information Act	TPY	Tons per Year
HAP	Hazardous Air Pollutant	TRS	Total Reduced Sulfur
HON	Hazardous Organic NESHAP	TSP	Total Suspended Particulate
HP	Horsepower	USEPA	United States Environmental Protection Agency
lbs/hr	Pounds per Hour	UTM	Universal Transverse Mercator
LDAR	Leak Detection and Repair	VEE	Visual Emissions Evaluation
M	Thousand	VOC	Volatile Organic Compounds
MACT	Maximum Achievable Control Technology		
MM	Million		
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour		
MMCF/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		
NSPS	New Source Performance Standards		
PM	Particulate Matter		

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§30-6.3.b.
[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), record-keeping, 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 should 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§30-8.7.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 C. S. R. § 45-30-5.1.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 (by the due date of the Acid Rain compliance certification) 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, firm, corporation, association or public agency 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, suffer, allow or permit 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 45CSR15]
- 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.]
- 3.1.4.1. Accidental and other infrequent discharges which cause or contribute to objectionable odors will be considered on an individual basis and shall be reported by the person responsible therefore to the Director in the manner to be prescribed by the Director.
[45CSR§4-4.1 State-Enforceable only.]
- 3.1.4.2. When a process or operation results in the discharge of an air pollutant or pollutants which causes or contributes to an objectionable odor, an acceptable control program shall be developed and offered to the Director by the person responsible for the discharge of such air pollutant or pollutants. This control program shall be submitted in the manner prescribed by the Director and within such time as shall be fixed by the Director. If such a control program has been approved by the Director by the issuance of a variance, the person responsible for said discharge shall not be considered to be in violation of this rule in connection with said discharge so long as the program is observed.
[45CSR§4-6.1 State-Enforceable only.]
- 3.1.4.3. The Director may permit, under emergency circumstances, the discharge of air pollutants which causes or contributes to an objectionable odor under specific conditions for specific time periods. Any person who desires such a variance shall make application to the Director in the manner prescribed by the Director.
[45CSR§4-6.2 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. Total Allowable Emission Rates for Similar Units in Priority I and Priority II Regions -- No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows: the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.
[45CSR§10-3.1.e]
- 3.1.10. Maximum Allowable Emission Rates for Similar Units in Region IV (Kanawha Valley Air Quality Control Region: Kanawha County, Putnam County, and Falls and Kanawha Magisterial Districts of Fayette County)--No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows: the product of 1.6 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour, provided however, that no more than 5,500 pounds per hour of sulfur dioxide shall be discharged into the open air from all such stacks.
[45CSR§10-3.2.c]
- 3.1.11. Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except

Region IV. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows: the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

[45CSR§10-3.3.f.]

- 3.1.12. 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].

Note: A source that combusts:

1. pipeline quality natural gas or
2. field gas with a maximum sulfur content of 20 grains of sulfur per 100 standard cubic feet shall be deemed in compliance with this requirement.

- 3.1.13. 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]

Note: A source that combusts:

1. pipeline quality natural gas or
2. field gas with a maximum H₂S content of 0.25 grains per 100 cubic feet of gas shall be deemed in compliance with this requirement.

- 3.1.14. Facilities using Mercaptan Tanks shall use proper odor control methods to comply with 45CSR4.

[45CSR§30-5.4.]

- 3.1.15. Emergency Operating Condition/Unit Replacement:

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) business days;
- e. The permittee must provide written notification to the Director within five (5) business 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§30-5.4]

3.2. Monitoring Requirements

- 3.2.1. There are no facility wide monitoring requirements.

3.3. Testing Requirements

- 3.3.1 Stack testing. As per provisions set forth elsewhere in this permit that require stack testing 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 General Permit Registration). 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 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.

[WV Code § 22-5-4(a)(15) and 45CSR13]

- 3.3.2. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

[45CSR§30-5.1.c.]

- 3.3.3. To show compliance with Section 3.1.12, the owner or operator may elect not to monitor the total sulfur content of the fuel combusted, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. § 60.331(u). The owner or operator shall use one of the following sources of information to make the required demonstration:

The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, representative fuel data specified in either section 2.3.1.4 or 2.3.2.4 of appendix D to 40 C.F.R.75 is required.

[45CSR§30-5.1.c.]

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.]

- 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.]

- (i) All applicable records shall be maintained in such a manner that they can be readily accessed.
- (ii) The most recent 2 years of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within a reasonable time after a request.
- (iii) The remaining 3 years of records may be retained offsite.

[45CSR§30-5.1.c.]

- 3.4.3 **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions taken.

[45CSR§30-5.1.c. State-Enforceable only.]

- 3.4.4. a. 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.

- b. When a person is found in violation of this rule, the Director may require the person to utilize a system to minimize fugitive particulate matter. This system to minimize fugitive particulate matter may include, but is not limited to, the following:
 - i. Use, where practicable, of water or chemicals for control of particulate matter in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;
 - ii. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne particulate matter;
 - iii. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets; or
 - iv. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of materials, including adequate containment methods during sandblasting, abrasive cleaning or other similar operations.

[45CSR§17-3.]

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. 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 CFR 2.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class, or by private carrier with postage prepaid to the address(es) 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

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency

Charleston, WV 25304
Phone: 304/926-0475
FAX: 304/926-0478

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 permittee shall maintain a copy of the certification 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. During compliance certification, the facility shall certify that the facility burns natural gas in all stationary_ equipment regulated under this permit except for emergency equipment (i.e. diesel generators). **[45CSR§30-5.1.c.3.C.]**

3.6. Compliance Plan

N/A

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 in the attachment labeled “Determinations Subject to Permit Shield” are not applicable to the source based on the determinations set forth in the attachment labeled “Determinations Subject to Permit Shield”. The permit shield shall apply to the following requirements provided the conditions of the determinations are met:

a. 45CSR4 shall not apply to the following sources of objectionable odor until such time as feasible control methods are developed:
Internal combustion engines.

[45CSR§4-7.1.]

4.0. Source-Specific Requirements [Miscellaneous Indirect Heat Exchangers including Reboilers, Natural Gas Heaters and Regeneration Gas Heaters < 10 MMBtu/hr]

4.1. Limitations and Standards

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

[45CSR§2-3.1.]

4.1.2. Compliance with the visible emission requirements of 45CSR§2-3.1 (Section 4.1.1 of this permit) shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 45CSR§2-3.1 (Section 4.1.1 of this permit). Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

[45CSR§2-3.2.]

4.2. Monitoring

4.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct visible emissions observations using Method 22 for the purpose of demonstrating compliance with Section 4.1.1. If visible emissions are observed, the permittee shall conduct a Method 9 reading unless the cause for visible emissions is corrected within 24 hours. Records of observation will be kept for at least 5 years from the date of observation.

[45CSR§30-5.1.c.]

5.0. Source-Specific Requirements [Miscellaneous Indirect Heat Exchangers including Reboilers and Regeneration Gas Heaters between >10 MMBtu/hr to <100 MMBtu/hr]

5.1. Limitations and Standards

Particulate Matter

- 5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]
- 5.1.2. Compliance with the visible emission requirements of 45CSR§2-3.1 (Section 5.1.1 of this permit) shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 45CSR§2-3.1 (Section 5.1.1 of this permit). Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2, 45CSR§2A-6]
- 5.1.3. No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:
For Gas-fired fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units;
[45CSR§2-4.1.b.]
- 5.1.4. Subject to the provisions of 45CSR2, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Director at the request of, and on forms provided by, the Director. Such rates shall be subject to review and approval by the Director. The approved set of individual stack allowable emission rates shall become an official part of the compliance schedule and/or any permits concerning such source(s), and shall not be changed without the prior written approval of the Director
[45CSR§2-4.2]
- 5.1.5. If the number of similar fuel burning units located at one plant, each of which is meeting the requirements of this rule, is expanded by the addition of a new unit(s), the total allowable emission rate for the new unit(s) shall be determined according to 45CSR§2-4.3.
[45CSR§2-4.3]
- 5.1.6. The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45CSR§2-4.4.]
- 5.1.7. The provisions of section 5.1.6 shall not apply to combustion units in operation on or before September 1, 1974.

[45CSR§2-4.5.]

- 5.1.8. The visible emission standards set forth in 45CSR§2-3.1 (Section 5.1.1 of this permit) shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.

[45CSR§2-9.1.]

- 5.1.9. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.

[45CSR§2-9.2.]**5.2. Monitoring Requirements**

- 5.2.1. If the applicable emission limit set forth in General Permit Registration does not already require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), compliance with the emission limits set forth in General Permit Registration for NO_x, CO, VOC, SO₂, PM, PM₁₀, and applicable HAP's shall be determined based on compliance with the fuel use limitation set forth in General Permit Registration and in conjunction with Section 5.2.2. If a monitoring timeframe is not already established and there are hourly emission limits established in the registration, monthly records indicating hourly average emissions shall be available for a period of no less than five (5) years. If a monitoring timeframe is not already established and there are yearly emission limits established in the registration, records indicating the twelve month total emissions shall be available for a period of no less than five (5) years. If the registration or applicable standard or permit so indicates, such yearly totals shall be recorded on a rolling twelve-month basis.

[45CSR§30-5.1.c.]

- 5.2.2. Continued compliance with Emission limitations for emissions of NO_x, CO, VOC, SO₂, PM, PM₁₀, and applicable HAP's set forth in General Permit Registration shall be shown using one of the following methods:
- Stack Test Data;
 - AP-42 factors; or
 - Manufacturer's guaranteed emission factors;
 - Other method/data approved by DAQ.
 - GRI Gly-Calc version 3.0 or higher; or
 - GRI HAP-Calc.

[45CSR§30-5.1.c.]

- 5.2.3. At such reasonable times as the Secretary may designate, the permittee shall conduct visible emissions observations using Method 22 For the purpose of demonstrating compliance with Section 5.1.1. If visible emissions are observed, the permittee shall conduct a Method 9 reading unless the cause for visible emissions is corrected within 24 hours. Records of observation will be kept for at least 5 years from the date of observation.

[45CSR§30-5.1.c.]

5.3. Testing requirements

- 5.3.1. At such reasonable times as the Secretary may designate, the permittee may be required to conduct or have conducted tests to determine compliance with emission limitations set forth in General Permit Registration of this permit. Tests shall be conducted in accordance with methods set forth below. The permittee may request an alternative test procedure with a written submittal to the Director.
- a. Tests to determine compliance with NO_x emission limits shall be conducted in accordance with Method 7E or 20 as set forth in 40 C.F.R.60, Appendix A.
 - b. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 C.F.R.60, Appendix A.
 - c. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 C.F.R.60, Appendix A.
 - d. Tests to determine compliance with SO₂ emission limits shall be conducted in accordance with Method 20 as set forth in 40 C.F.R. 60, Subpart GG.
 - e. Tests to determine compliance with PM₁₀ emission limits shall be conducted in accordance with Method 5 as set forth in 40 C.F.R. 60, Appendix A.
 - f. Tests to determine compliance with Benzene emission limits shall be conducted in accordance with Method 18 as set forth in 40 C.F.R. 60, Appendix A. Testing for formaldehyde shall be conducted using EPA Methods 320 or 323.

[45CSR§30-5.1.c.]

5.4. Recordkeeping Requirements

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

For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis. Such records are to be maintained and made available to the Director or his duly authorized representative upon request.

[45CSR§2-8.3.c, 45CSR§2A-7.1.]

5.5. Reporting Requirements

- 5.5.1. The owner or operator of a fuel burning unit(s) subject to 45CSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity [i.e., emissions exceeding the standards in sections 3 and 4 of 45CSR2 (Section 5.1.1 & 5.1.3 of this permit)] as provided in one of the following subdivisions:

- 5.5.1.1. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and Excess opacity does not exceed 40%.

- 5.5.1.2. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3a (Section 5.5.1.1 of this permit), by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:

A detailed explanation of the factors involved or causes of the malfunction;

The date and time of duration (with starting and ending times) of the period of excess emissions;

An estimate of the mass of excess emissions discharged during the malfunction period;

The maximum opacity measured or observed during the malfunction;

Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and

A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9.3.]

6.0. Source-Specific Requirements [Reciprocating Internal Combustion Engines, Emergency Generators & Combustion Turbines not subject to NSPS, 40 C.F.R.60]

6.1. Limitations and Standards

None

6.2. Monitoring Requirements

- 6.2.1. Compliance with the sulfur dioxide concentration limit established for diesel fueled emergency generators in Section 3.1.12 shall be demonstrated as follows:

Demonstrate and certify that diesel fuel with 1% or less sulfur content was used as the only fuel combusted in the emergency generator. Demonstration of the sulfur content will be deemed to be satisfied by an initial characterization of the diesel fuel sulfur content. Such data may be obtained from the supplier(s), ASTM testing or other method approved by the Director.

[45CSR§30-5.1.c.]

- 6.2.2. Compliance with Emission limitations set forth in General Permit Registration for emissions of NO_x, CO, VOC, SO₂, PM, PM₁₀ and applicable HAPs shall be shown using one of the following methods:

- a. Stack Test Data;
- b. AP-42 factors; or
- c. Manufacturer's guaranteed emission factors;
- d. Other method/data approved by DAQ.
- e. GRI Gly-Calc version 3.0 or higher; or
- f. GRI HAP-Calc.

[45CSR§30-5.1.c.]

- 6.2.3. If the applicable emission limit set forth in General Permit Registration does not already require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), continued compliance with the emission limits set forth in General Permit Registration for NO_x, CO, VOC, SO₂, PM, PM₁₀ and applicable HAPs shall be determined based on compliance with the fuel use and/or brake hp limitation set forth in General Permit Registration of this permit. If a monitoring timeframe is not already established and there are hourly emission limits established in the General Permit Registration, monthly records indicating the hourly average emissions shall be available for a period of no less than five (5) years. If a monitoring timeframe is not already established and there are yearly emission limits established in the General Permit Registration, records indicating the twelve month total emissions shall be available for a period of no less than five (5) years. If the General Permit registration or applicable standard or permit so indicates, such yearly totals shall be recorded on a rolling twelve calendar month basis.

[45CSR§30-5.1.c.]

6.3. Testing Requirements

- 6.3.1. At such reasonable times as the Secretary may designate, the permittee may be required to conduct or have conducted tests to determine compliance with emission limitations set forth in General permit Registration. Tests shall be conducted in accordance with methods set forth below. The permittee may request an alternative test procedure with a written submittal to the Director.

- a. Tests to determine compliance with NO_x emission limits shall be conducted in accordance

- with Method 7E or 20 as set forth in 40 C.F.R.60, Appendix A.
- b. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 C.F.R.60, Appendix A.
 - c. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 C.F.R.60, Appendix A.
 - d. Tests to determine compliance with SO₂ emission limits shall be conducted in accordance with Method 20 as set forth in 40 C.F.R. 60, Subpart GG.
 - e. Tests to determine compliance with PM₁₀ emission limits shall be conducted in accordance with Method 5 as set forth in 40 C.F.R. 60, Appendix A.
 - f. Tests to determine compliance with Benzene emission limits shall be conducted in accordance with Method 18 as set forth in 40 C.F.R. 60, Appendix A. Testing for formaldehyde shall be conducted using EPA Methods 320 or 323.
- [45CSR§30-5.1.c.]

6.4. Recordkeeping Requirements

- 6.4.1. If the applicable emission limit set forth in the General permit Registration does not already require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), to demonstrate continual compliance with the limits established in the General Permit Registration, the permittee shall maintain a record of equipment fuel consumption and/or bhp-hrs developed and hours of operation for all the Reciprocating Internal Combustion Engines, Emergency Generators & Combustion Turbines. If a monitoring timeframe is not already established, a twelve calendar month running total shall be maintained to verify compliance with the long term emission limitations. Each calendar month a new twelve month total shall be calculated using the previous twelve calendar months data. If a monitoring timeframe is not already established and there are hourly emission limits established in the General Permit Registration, monthly records indicating the hourly average emissions shall be available for a period of no less than five (5) years. If a monitoring timeframe is not already established and there are yearly emission limits established in the General permit Registration, records indicating the twelve month total emissions shall be available for a period of no less than five (5) years. If the General Permit Registration or applicable standard or permit so indicates, such yearly totals shall be recorded on a rolling twelve-calendar month basis. Upon request by the Secretary the records will be certified by the responsible official.
- [45CSR§30-5.1.c.]

7.0. Source-Specific Requirements [Turbines subject to New Source Performance Standards (NSPS), 40 C.F.R. Part 60, Subpart GG]

- 7.0.1.** The provisions 40 C.F.R. Part 60 Subpart GG, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix A, 40 C.F.R. 60 Subpart GG as of June 13, 2005.
- 7.0.2.** Except as provided in 40 CFR 60 Subpart GG, if the applicable emission limit set forth in General Permit Registration does not already require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), compliance with the emission limits set forth in General Permit Registration for NO_x, CO, VOC, SO₂, PM, PM₁₀, and applicable HAP's shall be determined based on compliance with the fuel use limitation in General Permit Registration. If a monitoring timeframe is not already established and there are hourly emission limits established in the General permit Registration, monthly records indicating the hourly average emissions shall be available for a period of no less than five (5) years. If a monitoring timeframe is not already established and there are yearly emission limits established in the General Permit Registration, records indicating the twelve month total emissions shall be available for a period of no less than five (5) years. If the General permit Registration or applicable standard or permit so indicates, such yearly totals shall be recorded on a rolling twelve-month basis.
[45CSR§30-5.1.c.]
- 7.0.3.** Continued compliance with Emission limitations set forth in General permit Registration for emissions of CO, VOC, PM, PM₁₀, and applicable HAP's shall be shown using one of the following methods:
- a. Manufacturer's guaranteed emission factors;
 - b. Stack Test Data;
 - c. AP-42 factors; or
 - d. Other method/data approved by DAQ.
 - e. GRI Gly-Calc version 3.0 or higher; or
 - f. GRI HAP-Calc.
- [45CSR§30-5.1.c.]

7.0.4. Test methods and procedures

At such reasonable times as the Secretary may designate, the permittee may be required to conduct or have conducted tests to determine compliance with emission limitations set forth in General Permit Registration. Tests shall be conducted in accordance with methods set forth below. The permittee may request an alternative test procedure with a written submittal to the Director.

- a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 C.F.R. 60, Appendix A.
 - b. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 C.F.R. 60, Appendix A.
 - c. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 C.F.R. 60, Appendix A.
 - d. Tests to determine compliance with Opacity of emissions shall be conducted in accordance with Method 9 as set forth in 40 C.F.R. 60, Appendix A.
- [45CSR§30-5.1.c.]

8.0. Source-Specific Requirements [Natural Gas Processing Plants subject to New Source Performance Standards (NSPS), 40 C.F.R. Part 60, Subpart KKK]

8.0.1. The provisions 40 C.F.R. Part 60 Subpart KKK, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix B, 40 C.F.R. 60 Subpart KKK as of June 13, 2005.

9.0. Source-Specific Requirements [Storage Vessels subject to 40 C.F.R.60 Subpart K]

9.0.1. The provisions 40 C.F.R. Part 60 Subpart K, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix C, 40 C.F.R. 60 Subpart K as of June 13, 2005.

10.0. Source-Specific Requirements [Storage Vessels subject to 40 C.F.R.60 Subpart Ka]

10.0.1. The provisions 40 C.F.R. Part 60 Subpart Ka, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix D, 40 C.F.R. 60 Subpart Ka as of June 13, 2005.

11.0. Source-Specific Requirements [Storage Vessels subject to 40 C.F.R.60 Subpart Kb]

11.0.1. The provisions 40 C.F.R. Part 60 Subpart Kb, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix E, 40 C.F.R. 60 Subpart Kb as of June 13, 2005.

12.0. Source-Specific Hazardous Air Pollutant Requirements (Natural Gas Dehydration Units Not Subject to MACT Standards)

12.1. Limitations and Standards

- 12.1.1. (a) Potential HAP emissions from the entire facility shall be less than 10 TPY of any single HAP or 25 TPY of any combination of HAPs. For purposes of determining potential HAP emissions at transmission and storage facilities, the methods specified in 40 CFR 63, Subpart HHH shall be used unless HAPs are specifically limited by a federally enforceable permit condition. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used unless HAPs are specifically limited by a federally enforceable permit condition.

Or,

- (b) If the permittee chooses to apply the less than 1.0 tons/yr of Benzene per dehydration unit either thru 45CSR13 limit or by this condition, the permittee is not subject to 12.1.1.(a).

Table 1.0 Glycol Dehydration Unit

Description	Mg/yr	Tons/Yr
Benzene	0.9	< 1.0

[45CSR§30-12.7]

The following requirements for flares make the flare federally and practically enforceable. If a flare is being used to provide the natural gas source with synthetic minor status or reduce the potential HAPs to below major source levels, the one ton of benzene exemption for MACT, or even if the source is minor without the flare, but would like to reduce their PTE by the use of a flare, the following control device requirements shall be used.

- 12.1.2. Flare, subject to this section shall be designed and operated in accordance with the following:

12.1.2.a Flares shall be steam-assisted, air-assisted, or non-assisted.

12.1.2.b. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

12.1.2.c. Flares shall be operated and with a flame present at all times when emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.

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

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

Where:

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

K=Constant=

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

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

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

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

n=Number of sample components.

12.1.2.e. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided by 12.1.2.f and 12.1.2.g of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).

12.1.2.f. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 12.1.2.e. of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

12.1.2.g. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 12.1.2.e. of this section, less than the velocity V_{max} , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{max})=(H_T+28.8)/31.7$$

Where:

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

28.8=Constant.

31.7=Constant.

H_T =The net heating value as determined in 12.1.2.d of this section

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

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

Where:

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

8.71=Constant.

0.708=Constant.

H_T =The net heating value as determined in 12.1.2.d of this section.

[45CSR§30-12.7]

12.1.3 Flares are not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2), until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 12.3.3, but the

permittee is required to conduct a flare design evaluation in accordance with section 12.3.2.

[45CSR§30-5.1.c.]

- 12.1.4. 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]

- 12.1.5. 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]

- 12.1.6. 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]

- 12.1.7. To claim less than 1 ton of Benzene exemption as stated in Section 12.1.1 of this permit, the permittee shall adhere to Section 12.1.7(a) or 12.1.7(b) depending on the source is 40 CFR 63, Subpart HHH or HH source:

12.1.7 (a) 40 CFR 63, Subpart HHH – Less than 1 Ton of Benzene Exemption

40 C.F.R. § 63.1274(d) *Exemptions*. The owner or operator is exempt from the requirements of paragraph (c) of 40 C.F.R. § 63.1274 if the criteria listed in paragraph 40 C.F.R. § 63.1274(d)(2) of this section is met, except that the records of the determination of these criteria must be maintained as required in 40 C.F.R. § 63.1284(d).

40 C.F.R. § 63.1274(d)(2) The actual average emissions of benzene from the glycol dehydration unit process vents to the atmosphere are less than 0.90 megagram per year as determined by the procedures specified in 40 C.F.R. § 63.1282(a)(2).

40 C.F.R. § 63.1282(a) *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 the exemption from control requirements under 40 C.F.R. § 63.1274(d).

40 C.F.R. § 63.1282(a)(2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (a)(2)(i) or (a)(2)(ii) of this section. 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 and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement by performing three runs of Method 18 in 40 CFR part 60, appendix A (or an equivalent method), and averaging the results of the three runs. Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

40 C.F.R. § 63.1284(d) An owner or operator that is exempt from control requirements under 40 C.F.R. § 63.1274(d) shall maintain the records specified in paragraph (d)(2) of this section, for each glycol dehydration unit that is not controlled according to the requirements of 40 C.F.R. §63.1274(c).

40 C.F.R. § 63.1284(d)(2) The actual average benzene emissions (in terms of benzene emissions per year), as determined in accordance with 40 C.F.R. § 63.1282(a)(2).

[45CSR34; 40 C.F.R. 63 Subpart HHH]

12.1.7 (b) 40 CFR 63, Subpart HH – less than 1 Ton of Benzene Exemption

40 C.F.R. § 63.764 (e)

(e) *Exemptions.* (1) The owner or operator is exempt from the requirements of paragraph (c)(1) and (d) of 40 C.F.R. § 63.764 if the criteria listed in paragraph (e)(1)(ii) of this section is met, except that the records of the determination of these criteria must be maintained as required in 40 C.F.R. § 63.774(d)(1).

(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 40 C.F.R. § 63.772(b)(2).

40 C.F.R. § 63.772(b)

(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) or (b)(2)(ii) of this section. 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 and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1); or

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

40 C.F.R. § 63.774(d)(1)

(d)(1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in 40 C.F.R. § 63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(ii) of this section, for that glycol dehydration unit.

(ii) The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with 40 C.F.R. § 63.772(b)(2).

[45CSR34; 40 C.F.R. 63 Subpart HH]

12.2. Monitoring Requirements

- 12.2.1. In order to demonstrate compliance with the requirements of 12.1.2.c, the permittee shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.
[45CSR§30-5.1.c.]
- 12.2.2. Compliance with the emission limits set forth in General Permit Registration for NO_x, CO, VOC, SO₂, applicable HAPs and PM₁₀ shall be determined based on compliance with either the underlying 45CSR13 or 45CSR14 permit(s) authorizing construction of the source or the gas and/or liquid throughput & gas usage limitation specified in General Permit Registration. If a monitoring timeframe is not already established and there are hourly emission limits established in the General permit Registration, records indicating the monthly emissions with operating records shall be available for a period of no less than five (5) years. If a monitoring timeframe is not already established and there are yearly emission limits established in the General Permit Registration, records indicating the twelve month total emissions shall be available for a period of no less than five (5) years. If the General permit Registration or applicable standard or permit so indicates, such yearly totals shall be recorded on a rolling twelve calendar month basis.
[45CSR§30-5.1.c.]
- 12.2.3. Compliance with the emission limits set forth in General Permit Registration for CO and NO_x from the flare shall be determined by using the emission factors listed in 13.5 for Industrial Flares of the 5th edition of USEPA's AP-42.
[45CSR§30-5.1.c.]
- 12.2.4. Compliance with the emission limits set forth in General Permit Registration for PM-10 from the flare shall be determined by using the emission factors listed in Section 1.4-2 for Natural Gas Combustion of the 5th edition of USEPA's AP-42 and the design heat input of the flare.
[45CSR§30-5.1.c.]

12.3. Testing Requirements

- 12.3.1. In order to demonstrate compliance with the flare opacity requirements of 12.1.2.b the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later and a second opacity test within one (1) year from the time the permit expires. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.
[45CSR§30-5.1.c.]
- 12.3.2. In order to demonstrate compliance with the flare design criteria requirements of section 12.1.2, the permittee shall conduct a flare design evaluation demonstrating compliance with the criteria set forth by section 12.1.2. The flare design evaluation shall include, but not limited to, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations. The permittee may elect to demonstrate compliance with the flare design criteria requirements of section 12.1.2 by complying with the compliance assessment testing requirements of section 12.3.3.

[45CSR§30-5.1.c.]

- 12.3.3. The Director may require the permittee to conduct a flare compliance assessment to demonstrate compliance with the flare requirements of section 12.1.2 and the flare design evaluation. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the permittee to conduct Test Method 4 in conjunction with Test Method 18.

[45CSR§30-5.1.c.]**12.4. Recordkeeping Requirements**

- 12.4.1. For the purpose of demonstrating compliance with section 12.1.2.c and 12.2.1, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent. 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.

[45CSR§30-5.1.c.]

- 12.4.2. For the purpose of demonstrating compliance with section 12.1.2 and 12.3.2, the permittee shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested. 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.

[45CSR§30-5.1.c.]

- 12.4.3. For the purpose of demonstrating compliance with the requirements set forth in sections 12.1.2 and 12.3.3., the permittee shall maintain records of testing conducted in accordance with 12.3.3. 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.

[45CSR§30-5.1.c.]

- 12.4.4. The permittee shall document and maintain the corresponding records specified by the ongoing monitoring requirements of 12.2 and testing requirements of 12.3. 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.

[45CSR§30-5.1.c.]

- 12.4.5. For the purpose of demonstrating compliance with section 12.1.2.b, the permittee shall maintain records of the visible emission opacity tests conducted per Section 12.3.1. 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. **[45CSR§30-5.1.c.]**

- 12.4.6. For the purpose of demonstrating compliance with section 12.1.1, the permittee shall maintain a record of all potential to emit (PTE) HAP calculations for the entire facility.

These records shall include the natural gas compressor engines and ancillary equipment. 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.

(The above recordkeeping is not needed if permittee is complying with Section 12.1.1 (b))
[45CSR§30-5.1.c.]

12.4.7. The permittee shall maintain a record of the wet natural gas throughput through the dehydration system to demonstrate compliance with the natural gas throughput limit set forth in General Permit Registration. 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.

[45CSR§30-5.1.c.]

12.4.8. For the purpose of determining compliance with the operating hours limit set forth in General Permit Registration (if 45CSR13 permit does not spell out method of compliance), the permittee shall maintain records of monthly hours of operation for the Glycol Dehydration Unit. 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.

[45CSR§30-5.1.c.]

12.5. Reporting Requirements

12.5.1. If permittee is required by the Director or chooses to demonstrate compliance with section 12.3.3, then the permittee shall submit a testing protocol thirty (30) days prior to testing and shall submit a notification of the testing date fifteen (15) days prior to testing. Also, the permittee shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.

[45CSR§30-5.1.c.]

12.5.2. Any deviation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but 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.]

12.5.3. Any deviation(s) of the flare design and operation criteria in Section 12.1.2 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days of discovery of such deviation.

[45CSR§30-5.1.c.]

13.0. Source-Specific Requirements [Natural Gas Transmission and Storage Facilities which are major sources of HAPS subject to 40 C.F.R.63 Subpart HHH]

- 13.0.1. The provisions 40 C.F.R. Part 63 Subpart HHH, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix F, 40 C.F.R. 63 Subpart HHH as of June 13, 2005.
- 13.0.2. The control device shall comply with Sections 12.1.4 to 12.1.6 of this permit.
[45CSR§30-5.4.]
- 13.0.3. Glycol Dehydration units equipped with a flare to reduce HAP emissions shall comply with monitoring requirements of Sections 12.2.2, 12.2.3 & 12.2.4.
[45CSR§30-5.1.c.]
- 13.0.4. This glycol dehydration unit shall keep records required in Sections 12.4.7, 12.4.8.
[45CSR§30-5.1.c.]

14.0 Source-Specific Requirements [Stationary Reciprocating Internal Combustion Engines (RICE) located at major sources of HAPS subject to 40 C.F.R.63 Subpart ZZZZ]

14.0.1. The provisions 40 C.F.R. Part 63 Subpart ZZZZ, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix G, 40 C.F.R. 63 Subpart ZZZZ as of June 13, 2005.

15.0 Source-Specific Requirements [Boilers and Process Heaters located at major sources of HAPS subject to 40 C.F.R.63 Subpart DDDDD]

15.0.1. The provisions 40 C.F.R. Part 63 Subpart DDDDD, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix H, 40 C.F.R. 63 Subpart DDDDD as of June 13, 2005. **Only pipeline quality natural gas fired Boilers and Process Heaters less than 100 MMBtu/hr are eligible for the general permit.**

16.0 Source-Specific Requirements [Small Industrial-Commercial-Institutional Steam Generating Units subject to 40 C.F.R.60 Subpart Dc]

16.0.1. The provisions 40 C.F.R. Part 60 Subpart Dc, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix I, 40 C.F.R. 60 Subpart Dc as of June 13, 2005.

17.0 Source-Specific Requirements [Miscellaneous Units – Mobile Glycol Reclaimer]

If the facility uses Mobile Glycol Reclaimer to process Glycol used in a Glycol Dehydration Unit subject to this permit, the Mobile Glycol Reclaimer shall be operated according to the enclosed 45CSR13 construction permit.

18.0 Source-Specific Requirements [45CSR1 requirements applicable to Stationary Internal Combustion Engines]

18.0.1. The provisions of 45CSR1 requirements applicable to Stationary Internal Combustion Engines, including any future amendments, are incorporated herein by reference. Attached, only for informational purposes/guidance, in Appendix J, 45CSR1 as of June 13, 2005.

Appendix A

The following reflect 40 C.F.R. 60 Subpart GG requirements as of June 13, 2005 and are subject to change.

(Note: In this section “this subpart” means 40 C.F.R. 60 Subpart GG)

§ 60.330 Applicability and designation of affected facility.

- (a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.
- (b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of 40 C.F.R. § 60.332.

§ 60.331 Definitions.

Please refer to 40 C.F.R. § 60.331.

§ 60.332 Standard for nitrogen oxides.

- (a) On and after the date on which the performance test required by 40 C.F.R. § 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.
 - (1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$\text{STD} = (0.0075 * 14.4 / Y) + F$$
 Where: STD = allowable ISO corrected (if required as given in 40 C.F.R. § 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis), Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.
 - (2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$\text{STD} = (0.0150 * 14.4 / Y) + F$$
 Where: STD = allowable ISO corrected (if required as given in 40 C.F.R. § 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis), Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.
 - (3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NO_x allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.
 - (4) If the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F

shall be defined according to the nitrogen content of the fuel during the most recent performance test required under 40 C.F.R. § 60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F (NO _x percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	$0.04(N)$
$0.1 < N \leq 0.25$	$0.004 + 0.0067(N-0.1)$
$N > 0.25$	0.005

where:

N=the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Director before the initial performance test required by 40 C.F.R. § 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

(b) N/A

(c) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of paragraph (a)(2) of this section.

(d) Stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less shall comply with paragraph (a)(2) of this section.

(e) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired and that have commenced construction prior to October 3, 1982 are exempt from paragraph (a) of this section.

(f) Stationary gas turbines using water or steam injection for control of NO_x emissions are exempt from paragraph (a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.

(g) N/A

(h) N/A

(i) Exemptions from the requirements of paragraph (a) of this section will be granted on a case-by-case basis as determined by the Director in specific geographical areas where mandatory water restrictions are required by governmental agencies because of drought conditions. These exemptions will be allowed only while the mandatory water restrictions are in effect.

(j) Stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour that commenced construction, modification, or reconstruction between the dates of October 3, 1977, and January 27, 1982, and were required in the September 10, 1979, Federal Register (44 FR 52792) to comply with paragraph (a)(1) of this section, except electric utility stationary gas turbines, are exempt from paragraph (a) of this section.

(k) Stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 million Btu/hour) when fired with natural gas are exempt from paragraph (a)(2) of this section

when being fired with an emergency fuel.

- (l) Regenerative cycle gas turbines with a heat input less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) are exempt from paragraph (a) of this section.

§ 60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by 40 C.F.R. § 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

- (a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.
- (b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000ppmw).

§ 60.334 Monitoring of operations.

- (a) Except as provided in paragraph (b) of this section, the owner or operator of any stationary gas turbine subject to the provisions of this section and using water or steam injection to control NO_x emissions shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine.
- (b) The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NO_x emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_x and O₂ monitors. As an alternative, a CO₂ monitor may be used to adjust the measured NO_x concentrations to 15 percent O₂ by either converting the CO₂ hourly averages to equivalent O₂ concentrations using Equation F-14a or F-14b in appendix F to 40 C.F.R. § 75 and making the adjustments to 15 percent O₂, or by using the CO₂ readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as described in 40 C.F.R. § 60.334(b)(1), (2) or (3) as applicable.
- (c) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO_x emissions, the owner or operator may, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the owner or operator has previously submitted and received EPA or local permitting authority approval of a petition for an alternative procedure of continuously monitoring compliance with the applicable NO_x emission limit under 40 C.F.R. § 60.332, that approved procedure may continue to be used, even if it deviates from paragraph (a) of this section.
- (d) The owner or operator of any new turbine constructed after July 8, 2004, and which uses water or steam injection to control NO_x emissions may elect to use either the requirements in paragraph (a) of this section for continuous water or steam to fuel ratio monitoring or may use a NO_x CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b) of this section.
- (e) The owner or operator of any new turbine that commences construction after July 8, 2004, and which does not use water or steam injection to control NO_x emissions may elect to use a NO_x CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b)

of this section. An acceptable alternative to installing a CEMS is described in paragraph (f) of this section.

- (f) The owner or operator of a new turbine who elects not to install a CEMS under paragraph (e) of this section, may instead perform continuous parameter monitoring as follows:
- (1) For a diffusion flame turbine without add-on selective catalytic reduction controls (SCR), the owner or operator shall define at least four parameters indicative of the unit's NO_x formation characteristics and shall monitor these parameters continuously.
 - (2) For any lean premix stationary combustion turbine, the owner or operator shall continuously monitor the appropriate parameters to determine whether the unit is operating in the lean premixed (low- NO_x) combustion mode.
 - (3) For any turbine that uses SCR to reduce NO_x emissions, the owner or operator shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.
 - (4) N/A
- (g) The steam or water to fuel ratio or other parameters that are continuously monitored as described in paragraphs (a), (d) or (f) of this section shall be monitored during the performance test required under 40 C.F.R. § 60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO_x emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan.
- (h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in 40 C.F.R. § 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86 (all of which are incorporated by reference-see 40 C.F.R. § 60.17), which measure the major sulfur compounds may be used; and
 - (2) Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (*i.e.*, if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 C.F.R. § 60.332. The nitrogen content of the fuel shall be determined using methods described in 40 C.F.R. § 60.335(b)(9) or an approved alternative.
 - (3) Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. § 60.331(u), regardless of whether an existing custom schedule approved by the administrator for 40 C.F.R. § 60 subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
 - (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 C.F.R. § 75 is required.
 - (4) For any turbine that commenced construction, reconstruction or modification after October 3,

1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

- (i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
 - (1) *Fuel oil.* N/A
 - (2) *Gaseous fuel.* Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.
 - (3) *Custom schedules.* Please refer to 40 C.F.R. § 60.334(I)(3)

- (j) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. § 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 C.F.R. § 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
 - (1) Nitrogen oxides.
 - (i) For turbines using water or steam to fuel ratio monitoring:
 - (A) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with 40 C.F.R. § 60.332, as established during the performance test required in 40 C.F.R. § 60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.
 - (B) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.
 - (C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in 40 C.F.R. § 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of 40 C.F.R. § 60.335(b)(1).
 - (ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.
 - (A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in 40 C.F.R. § 60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.
 - (B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.
 - (iii) For turbines using NO_x and diluent CEMS:
 - (A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds the applicable emission limit in 40 C.F.R. § 60.332(a)(1) or (2). For the purposes of this subpart, a “4-hour rolling average NO_x concentration” is the arithmetic average of the average NO_x

- concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under 40 C.F.R. § 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_x concentrations immediately preceding that unit operating hour.
- (B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO_x concentration or diluent (or both).
 - (C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in 40 C.F.R. § 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of 40 C.F.R. § 60.335(b)(1).
- (iv) For turbines required under paragraph (f) of this section to monitor combustion parameters or parameters that document proper operation of the NO_x emission controls:
- (A) An excess emission shall be a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
 - (B) A period of monitor downtime shall be a unit operating hour in which any of the required parametric data are either not recorded or are invalid.
- (2) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
 - (ii) N/A
 - (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.
- (3) *Ice fog*. Each period during which an exemption provided in 40 C.F.R. § 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.
- (4) *Emergency fuel*. Each period during which an exemption provided in 40 C.F.R. § 60.332(k) is in effect shall be included in the report required in 40 C.F.R. § 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.
- (5) All reports required under 40 C.F.R. § 60.7(c) shall be postmarked by the 30th day following the end of each calendar quarter.

§ 60.335 Test methods and procedures.

Please refer to 40 C.F.R. § 60.335.

Appendix B

The following reflect 40 C.F.R. 60 Subpart KKK requirements as of June 13, 2005 and are subject to change:

(Note: In this section “this subpart” means 40 C.F.R. 60 Subpart KKK)

§ 60.630 Applicability and designation of affected facility.

- (a) (1) The provisions of this subpart apply to affected facilities in onshore natural gas processing plants.
- (2) A compressor in VOC service or in wet gas service is an affected facility.
- (3) The group of all equipment except compressors (defined in 40 C.F.R. § 60.631) within a process unit is an affected facility.
- (b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after January 20, 1984, is subject to the requirements of this subpart.
- (c) Addition or replacement of equipment (defined in 40 C.F.R. § 60.631) for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
- (d) Facilities covered by subpart VV or subpart GGG of 40 C.F.R. part 60 are excluded from this subpart.
- (e) A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.

§ 60.631 Definitions.

Please refer to 40 C.F.R § 60.631

§ 60.632 Standards.

- (a) Each owner or operator subject to the provisions of this section shall comply with the requirements of 40 C.F.R. §§ 60.482-1 (a), (b), and (d) and 40 C.F.R. § 60.482-2 through § 60.482-10, except as provided in 40 C.F.R. § 60.633, as soon as practicable, but no later than 180 days after initial startup.
- (b) An owner or operator may elect to comply with the requirements of 40 C.F.R. §§ 60.483-1 and 60.483-2.
- (c) An owner or operator may apply to the Director for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of 40 C.F.R. § 60.634.
- (d) Each owner or operator subject to the provisions of this section shall comply with the provisions of 40 C.F.R. § 60.485 except as provided in 40 C.F.R. § 60.633(f) (Section 8.3(f) of this permit).
- (e) Each owner or operator subject to the provisions of this section shall comply with the provisions of 40 C.F.R. §§ 60.486 and 60.487 except as provided in 40 C.F.R. §§ 60.633, 60.635, and 60.636.
- (f) An owner or operator shall use the following provision instead of 40 C.F.R. § 60.485(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent

VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-63, 77, or 93, E168-67, 77, or 92, or E260-73, 91, or 96 (incorporated by reference as specified in 40 C.F.R. § 60.17) shall be used. [40 C.F.R. § 60.632, 45CSR16]

§ 60.633 Exceptions.

- (a) Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.
- (b) (1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in 40 C.F.R. § 60.485(b) except as provided in 40 C.F.R. § 60.632(c), paragraph (b)(4) of this section, and 40 C.F.R. § 60.482-4 (a) through (c) of subpart VV.
 - (2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
 - (3) (i) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 C.F.R. § 60.482-9.
 - (ii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
 - (4) (i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and 40 C.F.R. § 60.482-4(b)(1) of subpart VV.
 - (ii) No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring.
- (c) Sampling connection systems are exempt from the requirements of 40 C.F.R. § 60.482-5.
- (d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of 40 C.F.R. §§ 60.482-2(a)(1) and 60.482-7(a), and paragraph (b)(1) of this section.
- (e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of 40 C.F.R. §§ 60.482-2(a)(1), 60.482-7(a), and paragraph (b)(1) of this section.
- (f) Reciprocating compressors in wet gas service are exempt from the compressor control requirements of 40 C.F.R. § 60.482-3.
- (g) Flares used to comply with this subpart shall comply with the requirements of 40 C.F.R. § 60.18.
- (h) An owner or operator may use the following provisions instead of 40 C.F.R. § 60.485(e):
 - (1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in 40 C.F.R. § 60.17).
 - (2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in 40 C.F.R. § 60.17).

§ 60.634 Alternative means of emission limitation

Please refer to 40 C.F.R § 60.634

§ 60.635 Recordkeeping requirements.

- (a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of 40 C.F.R. § 60.486.
- (b) The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of 40 C.F.R. § 60.633(b)(1).

- (1) When each leak is detected as specified in 40 C.F.R. § 60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
- (2) When each leak is detected as specified in 40 C.F.R. § 60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
 - (i) The instrument and operator identification numbers and the equipment identification number.
 - (ii) The date the leak was detected and the dates of each attempt to repair the leak.
 - (iii) Repair methods applied in each attempt to repair the leak.
 - (iv) "Above 10,000 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 10,000 ppm or greater.
 - (v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - (vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
 - (vii) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - (viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.
 - (ix) The date of successful repair of the leak.
 - (x) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 C.F.R. § 60.482-4(a). The designation of equipment subject to the provisions of 40 C.F.R. § 60.482-4(a) shall be signed by the owner or operator.
- (c) An owner or operator shall comply with the following requirement in addition to the requirement of 40 C.F.R. § 60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in 40 C.F.R. § 60.633(f) shall be recorded in a log that is kept in a readily accessible location.

§ 60.636 Reporting requirements.

- (a) Each owner or operator subject to the provisions of this section shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of 40 C.F.R. § 60.487.
- (b) An owner or operator shall include the following information in the initial semiannual report in addition to the information required in 40 C.F.R. § 60.487(b) (1) - (4): Number of pressure relief devices subject to the requirements of 40 C.F.R. § 60.633(b) except for those pressure relief devices designated for no detectable emissions under the provisions of 40 C.F.R. § 60.482-4(a) and those pressure relief devices complying with 40 C.F.R. § 60.482-4(c).
- (c) An owner or operator shall include the following information in all semiannual reports in addition to the information required in 40 C.F.R. § 60.487(c)(2) (i) through (vi):
 - (1) Number of pressure relief devices for which leaks were detected as required in 40 C.F.R. § 60.633(b)(2) and
 - (2) Number of pressure relief devices for which leaks were not repaired as required in 40 C.F.R. § 60.633(b)(3).

Appendix C

The following reflect 40 C.F.R. 60 Subpart K requirements as of June 13, 2005 and are subject to change.
(Note: In this section “this subpart” means 40 C.F.R. 60 Subpart K)

§ 60.110 Applicability and designation of affected facility.

- (a) Except as provided in 40 C.F.R. § 60.110(b), the affected facility to which this section applies is each storage vessel for petroleum liquids which has a storage capacity greater than 151,412 liters (40,000 gallons).
- (b) This section does not apply to storage vessels for petroleum or condensate stored, processed, and/or treated at a drilling and production facility prior to custody transfer.
- (c) Subject to the requirements of this section is any facility under paragraph (a) of this section which:
 - (1) Has a capacity greater than 151,416 liters (40,000 gallons), but not exceeding 246,052 liters (65,000 gallons), and commences construction or modification after March 8, 1974, and prior to May 19, 1978.
 - (2) Has a capacity greater than 246,052 liters (65,000 gallons) and commences construction or modification after June 11, 1973, and prior to May 19, 1978.

§ 60.111 Definitions.

Please refer to 40 C.F.R §60.111

§ 60.112 Standard for volatile organic compounds (VOC).

- (a) The owner or operator of any storage vessel to which this subpart applies shall store petroleum liquids as follows:
 - (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents.
 - (2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent.

§ 60.113 Monitoring of operations.

- (a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
- (b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Director specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
- (c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).
- (d) The following are exempt from the requirements of this section:
 - (1) Each owner or operator of each affected facility which stores petroleum liquids with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).
 - (2) Each owner or operator of each affected facility equipped with a vapor recovery and return or disposal system in accordance with the requirements of 40 C.F.R. § 60.112.

Appendix D

The following reflect 40 CFR 60 Subpart Ka requirements as of June 13, 2005 and are subject to change:

(Note: In this section “this subpart” means 40 C.F.R. 60 Subpart Ka)

§ 60.110a Applicability and designation of affected facility.

- (a) *Affected facility.* Except as provided in paragraph (b) of this section, the affected facility to which this section applies is each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978.
- (b) Each petroleum liquid storage vessel with a capacity of less than 1,589,873 liters (420,000 gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer is not an affected facility and, therefore, is exempt from the requirements of this section.
- (c) *Alternative means of compliance –*
 - (1) *Option to comply with 40 C.F.R. Part 65.* Owners or operators may choose to comply with 40 C.F.R. part 65, subpart C, to satisfy the requirements of 40 C.F.R. §§ 60.112a through 60.114a for storage vessels that are subject to this subpart that store petroleum liquids that, as stored, have a maximum true vapor pressure equal to or greater than 10.3 kPa (1.5 psia). Other provisions applying to owners or operators who choose to comply with 40 C.F.R. part 65 are provided in 40 C.F.R. 65.1.
 - (2) *40 C.F.R. Part 60, subpart A.* Owners or operators who choose to comply with 40 C.F.R. part 65, subpart C, must also comply with 40 C.F.R. §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (c)(2) do not apply to owners or operators of storage vessels complying with 40 C.F.R. part 65, subpart C, except that provisions required to be met prior to implementing 40 C.F.R. part 65 still apply. Owners and operators who choose to comply with 40 C.F.R. part 65, subpart C, must comply with 40 C.F.R. part 65, subpart A.

§ 60.111a Definitions.

Please refer to 40 C.F.R § 60.111a

§ 60.112a Standard for volatile organic compounds (VOC).

- (a) The owner or operator of each storage vessel to which this subpart applies which contains a petroleum liquid which, as stored, has a true vapor pressure equal to or greater than 10.3 kPa (1.5 psia) but not greater than 76.6 kPa (11.1 psia) shall equip the storage vessel with one of the following:
 - (1) An external floating roof, consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank wall and the roof edge. Except as provided in paragraph (a)(1)(ii)(D) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal. The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.
 - (i) The primary seal is to be either a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. Each seal is to meet the following requirements:
 - (A) The accumulated area of gaps between the tank wall and the metallic shoe seal or the liquid-mounted seal shall not exceed 212 cm² per meter of tank diameter (10.0 in² per ft of tank diameter) and the width of any portion of any gap shall not exceed 3.81 cm (1 1/2 in).

- (B) The accumulated area of gaps between the tank wall and the vapor-mounted seal shall not exceed 21.2 cm² per meter of tank diameter (1.0 in² per ft of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (1/2 in).
- (C) One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 61 cm (24 in) above the stored liquid surface.
- (D) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
- (ii) The secondary seal is to meet the following requirements:
 - (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (a)(1)(ii)(B) of this section.
 - (B) The accumulated area of gaps between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal shall not exceed 21.2 cm² per meter of tank diameter (1.0 in² per ft. of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (1/2 in.). There shall be no gaps between the tank wall and the secondary seal used in combination with a vapor-mounted primary seal.
 - (C) There are to be no holes, tears or other openings in the seal or seal fabric.
 - (D) The owner or operator is exempted from the requirements for secondary seals and the secondary seal gap criteria when performing gap measurements or inspections of the primary seal.
- (iii) Each opening in the roof except for automatic bleeder vents and rim space vents is to provide a projection below the liquid surface. Each opening in the roof except for automatic bleeder vents, rim space vents and leg sleeves is to be equipped with a cover, seal or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use or as described in paragraph (a)(1)(iv) of this section. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting.
- (iv) Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
- (2) A fixed roof with an internal floating type cover equipped with a continuous closure device between the tank wall and the cover edge. The cover is to be floating at all times, (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the cover is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Each opening in the cover except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface. Each opening in the cover except for automatic bleeder vents, rim space vents, stub drains and leg sleeves is to be equipped with a cover, seal, or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Rim vents are to be set to open only when the cover is being floated off the leg supports or at the manufacturer's recommended setting.
- (3) A vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel, and a vapor return or disposal system which is designed to process such VOC vapors and gases so as to reduce their emission to the atmosphere by at least 95 percent by weight.
- (4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in 40 C.F.R. § 60.114a.
- (b) The owner or operator of each storage vessel to which this subpart applies which contains a petroleum liquid which, as stored, has a true vapor pressure greater than 76.6 kPa (11.1 psia),

shall equip the storage vessel with a vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel, and a vapor return or disposal system which is designed to process such VOC vapors and gases so as to reduce their emission to the atmosphere by at least 95 percent by weight.

§ 60.113a Testing and procedures.

- (a) Except as provided in 40 C.F.R. § 60.8(b) compliance with the standard prescribed in 40 C.F.R. § 60.112a shall be determined as follows or in accordance with an equivalent procedure as provided in 40 C.F.R. § 60.114a.
- (1) The owner or operator of each storage vessel to which this subpart applies which has an external floating roof shall meet the following requirements:
- (i) Determine the gap areas and maximum gap widths between the primary seal and the tank wall and between the secondary seal and the tank wall according to the following frequency:
- (A) For primary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every five years thereafter. All primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal shall be accomplished as rapidly as possible and the secondary seal shall be replaced as soon as possible.
- (B) For secondary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every year thereafter.
- (C) If any storage vessel is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill for the purposes of paragraphs (a)(1)(i)(A) and (a)(1)(i)(B) of this section.
- (D) Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by paragraph (a)(1)(ii) of this section and the calculation required by paragraph (a)(1)(iii) of this section.
- (E) If either the seal gap calculated in accord with paragraph (a)(1)(iii) of this section or the measured maximum seal gap exceeds the limitations specified by 40 C.F.R. § 60.112a of this subpart, a report shall be furnished to the Director within 60 days of the date of measurements. The report shall identify the vessel and list each reason why the vessel did not meet the specifications of 40 C.F.R. § 60.112a. The report shall also describe the actions necessary to bring the storage vessel into compliance with the specifications of 40 C.F.R. § 60.112a.
- (ii) Determine gap widths in the primary and secondary seals individually by the following procedures:
- (A) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
- (B) Measure seal gaps around the entire circumference of the tank in each place where a 1/8-inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location.
- (C) The total surface area of each gap described in paragraph (a)(1)(ii)(B) of this section shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
- (iii) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the appropriate ratio in the standard in 40 C.F.R. § 60.112a(a)(1)(i) and 40 C.F.R. § 60.112a(a)(1)(ii).
- (iv) Provide the Director 30 days prior notice of the gap measurement to afford the Director

the opportunity to have an observer present.

- (2) The owner or operator of each storage vessel to which this subpart applies which has a vapor recovery and return or disposal system shall provide the following information to the Director on or before the date on which construction of the storage vessel commences:
 - (i) Emission data, if available, for a similar vapor recovery and return or disposal system used on the same type of storage vessel, which can be used to determine the efficiency of the system. A complete description of the emission measurement method used must be included.
 - (ii) The manufacturer's design specifications and estimated emission reduction capability of the system.
 - (iii) The operation and maintenance plan for the system.
 - (iv) Any other information which will be useful to the Director in evaluating the effectiveness of the system in reducing VOC emissions.

§ 60.114a Alternative means of emission limitation.

Please refer to 40 C.F.R § 60.114a.

§ 60.115a Monitoring of operations.

- (a) Except as provided in paragraph (d), the owner or operator subject to this section shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
- (b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Director specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
- (c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).
- (d) The following are exempt from the requirements of this section:
 - (1) Each owner or operator of each storage vessel storing a petroleum liquid with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).
 - (2) The owner or operator of each storage vessel equipped with a vapor recovery and return or disposal system in accordance with the requirements of 40 C.F.R. § 60.112a(a)(3) and (b), or a closed vent system and control device meeting the specifications of 40 C.F.R. 65.42(b)(4), (b)(5), or (c).

[40 C.F.R. § 60.115a, 45CSR16]

Appendix E

The following reflect 40 C.F.R. 60 Subpart Kb requirements as of June 13, 2005 and are subject to change.

(Note: In this section “this subpart” means 40 C.F.R. 60 Subpart Kb)

§ 60.110b Applicability and designation of affected facility.

- (a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- (b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.
- (c) [Reserved]
- (d) This subpart does not apply to the following:
 - (1) Vessels at coke oven by-product plants.
 - (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
 - (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
 - (4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.
 - (5) Vessels located at bulk gasoline plants.
 - (6) Storage vessels located at gasoline service stations.
 - (7) Vessels used to store beverage alcohol.
 - (8) Vessels subject to subpart GGGG of 40 C.F.R. part 63.
- (e) *Alternative means of compliance* –
 - (1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 C.F.R. part 65, subpart C, to satisfy the requirements of 40 C.F.R. §§ 60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 C.F.R. part 65, subpart C, the monitoring requirements of 40 C.F.R. § 60.116b(c), (e), (f) (1), and (g) (Section 11.6 (c), (e), (f)(1), and (g) of this permit) still apply. Other provisions applying to owners or operators who choose to comply with 40 C.F.R. part 65 are provided in 40 C.F.R. 65.1.
 - (i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa;
or
 - (ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.
 - (2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 C.F.R. part 65, subpart C, must also comply with 40 C.F.R. §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 C.F.R. part 65, subpart C, except that provisions required to be met prior to implementing 40 C.F.R. part 65 still apply. Owners and operators who choose to comply with 40 C.F.R. part 65, subpart C, must comply with 40 C.F.R. part 65, subpart A.
 - (3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 C.F.R. part 65, subpart C, a report shall be furnished to the Director stating that the control equipment meets the specifications of 40 C.F.R. 65.43. This report shall be an attachment to the notification required by 40 C.F.R. 65.5(b).

- (4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 C.F.R. part 65, subpart C, a report shall be furnished to the Director stating that the control equipment meets the specifications of 40 C.F.R. 65.44. This report shall be an attachment to the notification required by 40 C.F.R. 65.5(b).

§ 60.111b Definitions.

Please refer to 40 C.F.R § 60.111b.

§ 60.112b Standard for volatile organic compounds (VOC)

- (a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 cubic meters (m³) containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:
- (1) A fixed roof in combination with an internal floating roof meeting the following specifications:
- (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
- (ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
- (A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
- (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
- (C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
- (iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
- (iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
- (v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- (vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent

- of the opening.
- (viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
 - (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
- (2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:
- (i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.
 - (A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 40 C.F.R. § 60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.
 - (B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 C.F.R. § 60.113b(b)(4).
 - (ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
 - (iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.
- (3) A closed vent system and control device meeting the following specifications:
- (i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, 40 C.F.R. § 60.485(b).
 - (ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 C.F.R. § 60.18) of the General Provisions.
- (4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in 40 C.F.R. § 60.114b of this subpart.
- (b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m³ which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:
- (1) A closed vent system and control device as specified in 40 C.F.R. § 60.112b(a)(3).
 - (2) A system equivalent to that described in paragraph (b)(1) as provided in 40 C.F.R. § 60.114b of this subpart.

§ 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in 40 C.F.R. § 60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b.

- (a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:
 - (1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
 - (2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Director in the inspection report required in 40 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
 - (3) For vessels equipped with a double-seal system as specified in 40 C.F.R. § 60.112b(a)(1)(ii)(B):
 - (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or
 - (ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.
 - (4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.
 - (5) Notify the Director in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Director the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Director at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by

- express mail so that it is received by the Director at least 7 days prior to the refilling.
- (b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), the owner or operator shall:
- (1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.
 - (i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.
 - (ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
 - (iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.
 - (2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:
 - (i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
 - (ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
 - (iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
 - (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.
 - (4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:
 - (i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm² per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
 - (A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.
 - (B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
 - (ii) The secondary seal is to meet the following requirements:
 - (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.
 - (B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm² per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.
 - (C) There are to be no holes, tears, or other openings in the seal or seal fabric.
 - (iii) If a failure that is detected during inspections required in paragraph (b)(1) of 40 C.F.R. § 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Director in the inspection report required in 40 C.F.R. § 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be

- repaired or the vessel will be emptied as soon as possible.
- (5) Notify the Director 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Director the opportunity to have an observer present.
 - (6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.
 - (i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.
 - (ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Director in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Director the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Director at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Director at least 7 days prior to the refilling.
- (c) The owner or operator of each source that is equipped with a closed vent system and control device as required in 40 C.F.R. § 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from 40 C.F.R. § 60.8 of the General Provisions and shall meet the following requirements.
- (1) Submit for approval by the Director as an attachment to the notification required by 40 C.F.R. § 60.7(a)(1) or, if the facility is exempt from 40 C.F.R. § 60.7(a)(1), as an attachment to the notification required by 40 C.F.R. § 60.7(a)(2), an operating plan containing the information listed below.
 - (i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.
 - (ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).
 - (2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Director in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Director during the review process. In this case, the modified plan applies.
- (d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in 40 C.F.R. § 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, 40 C.F.R. § 60.18 (e) and (f).

§ 60.114b Alternative means of emission limitation.

- (a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in 40 C.F.R. § 60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.
- (b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.
- (c) Any person seeking permission under this section shall submit to the Administrator a written application including:
 - (1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.
 - (2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.
- (d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in 40 C.F.R. § 60.112b.

§ 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in 40 C.F.R. § 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

- (a) After installing control equipment in accordance with 40 C.F.R. § 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
 - (1) Furnish the Director with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 C.F.R. § 60.112b(a)(1) and 40 C.F.R. § 60.113b(a)(1). This report shall be an attachment to the notification required by 40 C.F.R. § 60.7(a)(3).
 - (2) Keep a record of each inspection performed as required by 40 C.F.R. § 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
 - (3) If any of the conditions described in 40 C.F.R. § 60.113b(a)(2) are detected during the annual visual inspection required by 40 C.F.R. § 60.113b(a)(2), a report shall be furnished to the Director within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
 - (4) After each inspection required by 40 C.F.R. § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 C.F.R. § 60.113b(a)(3)(ii), a report shall be furnished to the Director within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 C.F.R. § 61.112b(a)(1) or 40 C.F.R. § 60.113b(a)(3) and list each repair made.
- (b) After installing control equipment in accordance with 40 C.F.R. § 61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.
 - (1) Furnish the Director with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 C.F.R. § 60.112b(a)(2) and 40 C.F.R. § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by 40 C.F.R. § 60.7(a)(3).
 - (2) Within 60 days of performing the seal gap measurements required by 40 C.F.R. §

- 60.113b(b)(1) , furnish the Director with a report that contains:
- (i) The date of measurement.
 - (ii) The raw data obtained in the measurement.
 - (iii) The calculations described in 40 C.F.R. § 60.113b (b)(2) and (b)(3).
- (3) Keep a record of each gap measurement performed as required by 40 C.F.R. § 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:
- (i) The date of measurement.
 - (ii) The raw data obtained in the measurement.
 - (iii) The calculations described in 40 C.F.R. § 60.113b (b)(2) and (b)(3).
- (4) After each seal gap measurement that detects gaps exceeding the limitations specified by 40 C.F.R. § 60.113b(b)(4), submit a report to the Director within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.
- (c) After installing control equipment in accordance with 40 C.F.R. § 60.112b (a)(3) or (b)(1) (Section 11.2(a)(3) or (b)(1) of this permit) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.
- (1) A copy of the operating plan.
 - (2) A record of the measured values of the parameters monitored in accordance with 40 C.F.R. § 60.113b(c)(2).
- (d) After installing a closed vent system and flare to comply with 40 C.F.R. § 60.112b, the owner or operator shall meet the following requirements.
- (1) A report containing the measurements required by 40 C.F.R. § 60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Director as required by 40 C.F.R. § 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.
 - (2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.
 - (3) Semiannual reports of all periods recorded under 40 C.F.R. § 60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Director.

§ 60.116b Monitoring of operations.

- (a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
- (b) The owner or operator of each storage vessel as specified in 40 C.F.R. § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.
- (c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
- (d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Director within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.
- (e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

- (1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
- (2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
 - (i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference -- see 40 C.F.R. § 60.17), unless the Director specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
 - (ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
- (3) For other liquids, the vapor pressure:
 - (i) May be obtained from standard reference texts, or
 - (ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference -- see 40 C.F.R. § 60.17); or
 - (iii) Measured by an appropriate method approved by the Administrator; or
 - (iv) Calculated by an appropriate method approved by the Administrator.
- (f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
 - (1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.
 - (2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in 40 C.F.R. § 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
 - (i) ASTM D2879-83, 96, or 97 (incorporated by reference -- see 40 C.F.R. § 60.17); or
 - (ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or
 - (iii) As measured by an appropriate method as approved by the Administrator.
- (g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 C.F.R. 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

Appendix F

The following reflect 40 CFR 63 Subpart HHH requirements as of June 13, 2005 and are subject to change.

(Note: In this section “this subpart” means 40 C.F.R.63 Subpart HHH)

(Note: In this section “this part” means 40 C.F.R. Part 63)

§ 63.1270 Applicability and designation of affected source.

This section applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in 40 C.F.R. § 63.1271. Emissions for major source determination purposes shall be estimated according to 40 C.F.R. § 63.1270.

§ 63.1271 Definitions.

Please refer to 40 C.F.R § 63.1271

§ 63.1272 Startups, shutdowns, and malfunctions.

13.2.1. Startups, Shutdowns, and malfunctions shall be according to 40 C.F.R. § 63.1272.

13.2.2. General MACT standards shall be according to 40 C.F.R. § 63.1274.

§ 63.1273 [Reserved]

§ 63.1274 General standards.

§ 63.1275 Glycol dehydration unit process vent standards.

- (a) This section applies to each glycol dehydration unit subject to this subpart with an actual annual average natural gas flowrate equal to or greater than 283.0 thousand standard cubic meters per day and with actual average benzene glycol dehydration unit process vent emissions equal to or greater than 0.90 megagrams per year.
- (b) Except as provided in paragraph (c) of this section, an owner or operator of a glycol dehydration unit process vent shall comply with the requirements specified in paragraphs (b)(1) and (b)(2) of this section.
 - (1) For each glycol dehydration unit process vent, the owner or operator shall control air emissions by either paragraph (b)(1)(i) or (b)(1)(ii) of this section.
 - (i) The owner or operator shall connect the process vent to a control device or a combination of control devices through a closed-vent system. The closed-vent system shall be designed and operated in accordance with the requirements of 40 C.F.R. § 63.1281(c). The control device(s) shall be designed and operated in accordance with the requirements of 40 C.F.R. § 63.1281(d).
 - (ii) The owner or operator shall connect the process vent to a control device or a combination of control devices through a closed-vent system and the outlet benzene emissions from the control device(s) shall be less than 0.90 megagrams per year. The closed-vent system shall be designed and operated in accordance with the requirements of 40 C.F.R. § 63.1281(c). The control device(s) shall be designed and operated in accordance with the requirements of 40 C.F.R. § 63.1281(d), except that the performance requirements specified in 40 C.F.R. § 63.1281(d)(1)(i) and (ii).
 - (2) One or more safety devices that vent directly to the atmosphere may be used on the air emission control equipment installed to comply with paragraph (b)(1) of this section.
- (c) As an alternative to the requirements of paragraph (b) of this section, the owner or operator may

comply with one of the following:

- (1) The owner or operator shall control air emissions by connecting the process vent to a process natural gas line.
- (2) The owner or operator shall demonstrate, to the Director's satisfaction, that the total HAP emissions to the atmosphere from the glycol dehydration unit process vent are reduced by 95.0 percent through process modifications or a combination of process modifications and one or more control devices, in accordance with the requirements specified in 40 C.F.R. § 63.1281(e).
- (3) Control of HAP emissions from a GCG separator (flash tank) vent is not required if the owner or operator demonstrates, to the Director's satisfaction, that total emissions to the atmosphere from the glycol dehydration unit process vent are reduced by one of the levels specified in paragraph (c)(3)(i) or (ii) through the installation and operation of controls as specified in paragraph (b)(1) of this section.
 - (i) HAP emissions are reduced by 95.0 percent or more.
 - (ii) Benzene emissions are reduced to a level less than 0.90 megagrams per year.

§§ 63.1276-63.1280 [Reserved]

§ 63.1281 Control equipment requirements.

- (a) This section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions as required by the provisions of this subpart. Compliance with paragraphs (c) and (d) of this section will be determined by review of the records required by 40 C.F.R. § 63.1284, the reports required by 40 C.F.R. § 63.1285, by review of performance test results, and by inspections.
- (b) [Reserved]
- (c) *Closed-vent system requirements.*
 - (1) The closed-vent system shall route all gases, vapors, and fumes emitted from the material in a HAP emissions unit to a control device that meets the requirements specified in paragraph (d) of this section.
 - (2) The closed-vent system shall be designed and operated with no detectable emissions.
 - (3) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section.
 - (i) For each bypass device, except as provided for in paragraph (c)(3)(ii) of this section, the owner or operator shall either:
 - (A) Properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device to the atmosphere that takes a reading at least once every 15 minutes, and that sounds an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere; or
 - (B) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.
 - (ii) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (c)(3)(i) of this section.
- (d) *Control device requirements.*
 - (1) The control device used to reduce HAP emissions in accordance with the standards of this subpart shall be one of the control devices specified in paragraphs (d)(1)(i) through (iii) of this section.
 - (i) An enclosed combustion device (e.g., thermal vapor incinerator, catalytic vapor incinerator, boiler, or process heater) that is designed and operated in accordance with 40 C.F.R. § 63.1281(d)(1)(i). (Note: For details refer to 40 C.F.R. § 63.1281(d)(1)(i))

- (ii) A vapor recovery device (e.g., carbon adsorption system or condenser) or other control device that is designed and operated to reduce the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by weight or greater as determined in accordance with the requirements of 40 C.F.R. § 63.1282(d).
 - (iii) A flare that is designed and operated in accordance with the requirements of 40 C.F.R. § 63.11(b).
- (2) [Reserved]
- (3) The owner or operator shall demonstrate that a control device achieves the performance requirements of paragraph (d)(1) of this section by following the procedures specified in 40 C.F.R. § 63.1282(d).
- (4) The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (d)(4)(i) and (ii) of this section.
 - (i) Each control device used to comply with this subpart shall be operating at all times when gases, vapors, and fumes are vented from the emissions unit or units through the closed-vent system to the control device, as required under 40 C.F.R. § 63.1275, except when maintenance or repair of a unit cannot be completed without a shutdown of the control device. An owner or operator may vent more than one unit to a control device used to comply with this subpart.
 - (ii) For each control device monitored in accordance with the requirements of 40 C.F.R. § 63.1283(d), the owner or operator shall demonstrate compliance according to the requirements of 40 C.F.R. § 63.1282(e), or (f) as applicable.
- (5) For each carbon adsorption system used as a control device to meet the requirements of paragraph (d)(1) of this section, the owner or operator shall manage the carbon as described in 40 C.F.R. § 63.1281(d)(5). (Note: For details refer to 40 C.F.R. § 63.1281(d)(5))
- (e) *Process modification requirements.* Each owner or operator that chooses to comply with 40 C.F.R. § 63.1275(c)(2) shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.
 - (1) The owner or operator shall determine glycol dehydration unit baseline operations (as defined in 40 C.F.R. § 63.1271). Records of glycol dehydration unit baseline operations shall be retained as required under 40 C.F.R. § 63.1284(b)(9).
 - (2) The owner or operator shall document, to the Administrator's satisfaction, the conditions for which glycol dehydration unit baseline operations shall be modified to achieve the 95.0 percent overall HAP emission reduction, either through process modifications or through a combination of process modifications and one or more control devices. If a combination of process modifications and one or more control devices are used, the owner or operator shall also establish the percent HAP reduction to be achieved by the control device to achieve an overall HAP emission reduction of 95.0 percent for the glycol dehydration unit process vent. Only modifications in glycol dehydration unit operations directly related to process changes, including but not limited to changes in glycol circulation rate or glycol-HAP absorbency, shall be allowed. Changes in the inlet gas characteristics or natural gas throughput rate shall not be considered in determining the overall HAP emission reduction due to process modifications.
 - (3) The owner or operator that achieves a 95.0 percent HAP emission reduction using process modifications alone shall comply with paragraph (e)(3)(i) of this section. The owner or operator that achieves a 95.0 percent HAP emission reduction using a combination of process modifications and one or more control devices shall comply with paragraphs (e)(3)(i) and (e)(3)(ii) of this section.
 - (i) The owner or operator shall maintain records, as required in 40 C.F.R. § 63.1284(b)(10), that the facility continues to operate in accordance with the conditions specified under paragraph (e)(2) of this section.
 - (ii) The owner or operator shall comply with the control device requirements specified in paragraph (d) of this section, except that the emission reduction achieved shall be the emission reduction specified in paragraph (e)(2) of this section.

§ 63.1282 Test methods, compliance procedures, and compliance demonstrations.

- (a) *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 the exemption from control requirements under 40 C.F.R. § 63.1274(d).
- (1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (a)(1)(i) or (a)(1)(ii) of this section.
 - (i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert the annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.
 - (ii) The owner or operator shall document, to the Administrator's satisfaction, that the actual annual average natural gas flowrate to the glycol dehydration unit is less than 283.0 thousand standard cubic meters per day.
 - (2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (a)(2)(i) or (a)(2)(ii) of this section. 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-GLYCalcTM, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or
 - (ii) The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement by performing three runs of Method 18 in 40 C.F.R. part 60, appendix A (or an equivalent method), and averaging the results of the three runs. Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.
- (b) *No detectable emissions test procedure shall be conducted according to 40 C.F.R. § 63.1282(b).* (Note: For details refer to 40 C.F.R. § 63.1282(b))
- (c) [Reserved]
- (d) *Control device performance test procedures shall be according to 40 C.F.R. § 63.1282(d).* (Note: For details refer to 40 C.F.R. § 63.1282(d))
- (e) *Compliance demonstration for control devices performance requirements.* This paragraph applies to the demonstration of compliance with the control device performance requirements specified in 40 C.F.R. § 63.1281(d)(1) and (e)(3)(ii). Compliance shall be demonstrated using the requirements in paragraphs (e)(1) through (3) of this section. As an alternative, an owner or operator that installs a condenser as the control device to achieve the requirements specified in 40 C.F.R. § 63.1281(d)(1)(ii) or (e)(3)(ii) may demonstrate compliance according to paragraph (f) of this section. An owner or operator may switch between compliance with paragraph (e) of this section and compliance with paragraph (f) of this section only after at least 1 year of operation in compliance with the selected approach. Notification of such a change in the compliance method shall be reported in the next Periodic Report, as required in 40 C.F.R. § 63.1285(e), following the change.
- (1) The owner or operator shall establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of 40 C.F.R. § 63.1283(d)(5)(i).
 - (2) The owner or operator shall calculate the daily average of the applicable monitored parameter in accordance with 40 C.F.R. § 63.1283(d)(4).
 - (3) Compliance is achieved when the daily average of the monitoring parameter value calculated under paragraph (e)(2) of this section is either equal to or greater than the minimum or equal

to or less than the maximum monitoring value established under paragraph (e)(1) of this section..

- (f) *Compliance demonstration with percent reduction performance requirements – condensers shall be conducted according to 40 C.F.R. § 63.1282(f).* (Note: For details refer to 40 C.F.R. § 63.1282(f)).

§ 63.1283 Inspection and monitoring requirements.

- (a) This section applies to an owner or operator using air emission controls in accordance with the requirements of 40 C.F.R. § 63.1275.
- (b) [Reserved]
- (c) *Closed-vent system inspection and monitoring requirements.*
- (1) For each closed-vent system required to comply with this section, the owner or operator shall comply with the requirements of paragraphs (c)(2) through (7) of this section.
 - (2) Except as provided in paragraphs (c) (5) and (6) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (c)(2) (i) and (ii) of this section.
 - (i) For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange), the owner or operator shall:
 - (A) Conduct an initial inspection according to the procedures specified in 40 C.F.R. § 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in 40 C.F.R. § 63.1285(d)(1) or (2).
 - (B) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices. The owner or operator shall monitor a component or connection using the procedures specified in 40 C.F.R. § 63.1282(b) to demonstrate that it operates with no detectable emissions following any time the component or connection is repaired or replaced or the connection is unsealed. Inspection results shall be submitted in the Periodic Report as specified in 40 C.F.R. § 63.1285(e)(2)(iii).
 - (ii) For closed-vent system components other than those specified in paragraph (c)(2)(i) of this section, the owner or operator shall:
 - (A) Conduct an initial inspection according to the procedures specified in 40 C.F.R. § 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in 40 C.F.R. § 63.1285(d)(1) or (2).
 - (B) Conduct annual inspections according to the procedures specified in 40 C.F.R. § 63.1282(b) to demonstrate that the components or connections operate with no detectable emissions. Inspection results shall be submitted in the Periodic Report as specified in 40 C.F.R. § 63.1285(e)(2)(iii).
 - (C) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices. Inspection results shall be submitted in the Periodic Report as specified in 40 C.F.R. § 63.1285(e)(2)(iii).
 - (3) In the event that a leak or defect is detected, the owner or operator shall repair the leak or defect as soon as practicable, except as provided in paragraph (c)(4) of this section.
 - (i) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
 - (ii) Repair shall be completed no later than 15 calendar days after the leak is detected.
 - (4) Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in 40 C.F.R. § 63.1271, or if the owner or operator determines that emissions resulting from immediate

- repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.
- (5) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(5) (i) and (ii) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (c)(2) (i) and (ii) of this section if:
 - (i) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (c)(2) (i) or (ii) of this section; and
 - (ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
 - (6) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(6) (i) and (ii) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (c)(2) (i) and (ii) of this section if:
 - (i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
 - (ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.
 - (7) Records shall be maintained as specified in 40 C.F.R. § 63.1284(b)(5) through (8).
- (d) *Control device monitoring requirements.*
- (1) For each control device except as provided for in paragraph (d)(2) of this section, the owner or operator shall install and operate a continuous parameter monitoring system in accordance with the requirements of paragraphs (d)(3) through (9) of this section that will allow a determination to be made whether the control device is achieving the applicable performance requirements of 40 C.F.R. § 63.1281(d) or (e)(3). Owners or operators that install and operate a flare in accordance with 40 C.F.R. § 63.1281(d)(1)(iii) are exempt from the requirements of paragraphs (d)(4) and (5) of this section. The continuous parameter monitoring system must meet the following specifications and requirements:
 - (i) Each continuous parameter monitoring system shall measure data values at least once every hour and record either:
 - (A) Each measured data value; or
 - (B) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.
 - (ii) The monitoring system must be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide reasonable assurance that the monitoring equipment is operating properly.
 - (2) An owner or operator is exempted from the monitoring requirements specified in paragraphs (d)(3) through (9) of this section for the following types of control devices:
 - (i) A boiler or process heater in which all vent streams are introduced with the primary fuel or are used as the primary fuel;
 - (ii) A boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts.
 - (3) The owner or operator shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified in either paragraph (d)(3)(i), (d)(3)(ii), or (d)(3)(iii) of this section.
 - (i) A continuous monitoring system that measures the following operating parameters as applicable:
 - (A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The monitoring device shall have a minimum accuracy of ± 2 percent of the temperature being monitored in $^{\circ}\text{C}$, or ± 2.5 $^{\circ}\text{C}$, whichever value is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.
 - (B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperatures at two

- locations and have a minimum accuracy of ± 2 percent of the temperatures being monitored in $^{\circ}\text{C}$, or ± 2.5 $^{\circ}\text{C}$, whichever value is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.
- (C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
- (D) For a boiler or process heater with a design heat input capacity of less than 44 megawatts, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of ± 2 percent of the temperature being monitored in $^{\circ}\text{C}$, or ± 2.5 $^{\circ}\text{C}$, whichever value is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.
- (E) For a condenser, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of ± 2 percent of the temperature being monitored in $^{\circ}\text{C}$, or ± 2.5 $^{\circ}\text{C}$, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.
- (F) For a regenerative-type carbon adsorption system:
- (1) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle. The integrating regenerating stream flow monitoring device must have an accuracy of ± 10 percent; and
- (2) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle. The temperature monitoring device shall have a minimum accuracy of ± 2 percent of the temperature being monitored in $^{\circ}\text{C}$, or ± 2.5 $^{\circ}\text{C}$, whichever value is greater.
- (G) For a nonregenerative-type carbon adsorption system, the owner or operator shall monitor the design carbon replacement interval established using a performance test performed in accordance with 40 C.F.R. § 63.1282(d)(3) or a design analysis in accordance with 40 C.F.R. § 63.1282(d) and shall be based on the total carbon working capacity of the control device and source operating schedule.
- (ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder. The monitor must meet the requirements of Performance Specification 8 or 9 of appendix B of 40 C.F.R. part 60 and must be installed, calibrated, and maintained according to the manufacturer's specifications.
- (iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (d)(3)(i) or (d)(3)(ii) of this section upon approval of the Director as specified in 40 C.F.R. § 63.8(f)(1) through (5).
- (4) Using the data recorded by the monitoring system, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If HAP emissions unit operation is continuous, the operating day is a 24-hour period. If the HAP emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.
- (5) For each operating parameter monitored in accordance with the requirements of paragraph (d)(3) of this section, the owner or operator shall comply with paragraph (d)(5)(i) of this section for all control devices, and when condensers are installed, the owner or operator shall also comply with paragraph (d)(5)(ii) of this section for condensers.
- (i) The owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the

conditions at which the control device must be operated to continuously achieve the applicable performance requirements of 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii). Each minimum or maximum operating parameter value shall be established as follows:

- (A) If the owner or operator conducts performance tests in accordance with the requirements of 40 C.F.R. § 63.1282(d)(3) to demonstrate that the control device achieves the applicable performance requirements specified in 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii), then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by control device design analysis or control device manufacturer's recommendations or a combination of both.
 - (B) If the owner or operator uses a control device design analysis in accordance with the requirements of 40 C.F.R. § 63.1282(d)(4) to demonstrate that the control device achieves the applicable performance requirements specified in 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii), then the minimum operating parameter value or the maximum operating parameter value shall be established based on the control device design analysis and may be supplemented by the control device manufacturer's recommendations.
- (ii) The owner or operator shall establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established as follows:
- (A) If the owner or operator conducts a performance test in accordance with the requirements of 40 C.F.R. § 63.1282(d)(3) to demonstrate that the condenser achieves the applicable performance requirements in 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii), then the condenser performance curve shall be based on values measured during the performance test and supplemented as necessary by control device design analysis, or control device manufacturer's recommendations, or a combination of both.
 - (B) If the owner or operator uses a control device design analysis in accordance with the requirements of 40 C.F.R. § 63.1282(d)(4)(i)(D) to demonstrate that the condenser achieves the applicable performance requirements specified in 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii), then the condenser performance curve shall be based on the condenser design analysis and may be supplemented by the control device manufacturer's recommendations.
 - (C) As an alternative to paragraphs (d)(5)(ii)(A) and (B) of this section, the owner or operator may elect to use the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, Version 3.0 or higher, to generate a condenser performance curve.
- (6) An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (d)(6)(i) through (d)(6)(iv) of this section being met. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified in paragraphs (d)(6)(i) through (d)(6)(iv) of this section, then a single excursion is determined to have occurred for the control device for that operating day.
- (i) An excursion occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (d)(5)(i) of this section.
 - (ii) An excursion occurs when average condenser efficiency calculated according to the requirements specified in 40 C.F.R. § 63.1282(f)(2)(iii) is less than 95.0 percent, as specified in 40 C.F.R. § 63.1282(f)(3).
 - (iii) An excursion occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

- (iv) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, an excursion occurs when:
 - (A) For each bypass line subject to 40 C.F.R. § 63.1281(c)(3)(i)(A) the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.
 - (B) For each bypass line subject to 40 C.F.R. § 63.1281(c)(3)(i)(B), if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.
- (7) For each excursion, except as provided for in paragraph (d)(8) of this section, the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard.
- (8) An excursion is not a violation of the operating parameter limit as specified in paragraphs (d)(8)(i) and (d)(8)(ii) of this section.
 - (i) An excursion does not count toward the number of excused excursions allowed under paragraph (d)(8)(ii) of this section when the excursion occurs during any one of the following periods:
 - (A) During a period of startup, shutdown, or malfunction when the affected facility is operated during such period in accordance with the facility's startup, shutdown, and malfunction plan; or
 - (B) During periods of non-operation of the unit or the process that is vented to the control device (resulting in cessation of HAP emissions to which the monitoring applies).
 - (ii) For each control device, or combinations of control devices, installed on the same HAP emissions unit, one excused excursion is allowed per semiannual period for any reason. The initial semiannual period is the 6-month reporting period addressed by the first Periodic Report submitted by the owner or operator in accordance with 40 C.F.R. § 63.1285(e) of this subpart.
- (9) Nothing in paragraphs (d)(1) through (d)(8) of this section shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this subpart.

§ 63.1284 Recordkeeping requirements.

- (a) The recordkeeping provisions of subpart A of this part, that apply and those that do not apply to owners and operators of facilities subject to this subpart are listed in Table 2 of this subpart.
- (b) Except as specified in paragraphs (c) and (d) of this section, each owner or operator of a facility subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (b)(10) of this section:
 - (1) The owner or operator of an affected source subject to the provisions of this subpart shall maintain files of all information (including all reports and notifications) required by this subpart. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.
 - (i) All applicable records shall be maintained in such a manner that they can be readily accessed.
 - (ii) The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request.
 - (iii) The remaining 4 years of records may be retained offsite.
 - (iv) Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.
 - (2) Records specified in 40 C.F.R. § 63.10(b)(2);
 - (3) Records specified in 40 C.F.R. § 63.10(c) for each monitoring system operated by the owner or operator in accordance with the requirements of 40 C.F.R. § 63.1283(d). Notwithstanding

the previous sentence, monitoring data recorded during periods identified in paragraphs (b)(3)(i) through (iv) of this section shall not be included in any average or percent leak rate computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.

- (i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;
 - (ii) Startup, shutdown, and malfunction events. During startup, shutdown and malfunction events, the owner or operator shall maintain records indicating whether or not the startup, shutdown, or malfunction plan, required under 40 C.F.R. § 63.1272(d), was followed.
 - (iii) Periods of non-operation resulting in cessation of the emissions to which the monitoring applies; and
 - (iv) Excursions due to invalid data as defined in 40 C.F.R. § 63.1283(d)(6)(iii).
- (4) Each owner or operator using a control device to comply with 40 C.F.R. § 63.1274 shall keep the following records up-to-date and readily accessible:
- (i) Continuous records of the equipment operating parameters specified to be monitored under 40 C.F.R. § 63.1283(d) or specified by the Director in accordance with 40 C.F.R. § 63.1283(d)(3)(iii). For flares, the hourly records and records of pilot flame outages specified in paragraph (e) of this section shall be maintained in place of continuous records.
 - (ii) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 C.F.R. § 63.1283(d)(4). For flares, the records required in paragraph (e) of this section.
 - (iii) Hourly records of whether the flow indicator specified under 40 C.F.R. § 63.1281(c)(3)(i)(A) was operating and whether flow was detected at any time during the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating.
 - (iv) Where a seal or closure mechanism is used to comply with 40 C.F.R. § 63.1281(c)(3)(i)(B), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.
- (5) Records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with 40 C.F.R. § 63.1283(c)(5), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
- (6) Records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with 40 C.F.R. § 63.1283(c)(6), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
- (7) For each inspection conducted in accordance with 40 C.F.R. § 63.1283(c), during which a leak or defect is detected, a record of the information specified in paragraphs (b)(7)(i) through (b)(7)(viii) of this section.
- (i) The instrument identification numbers, operator name or initials, and identification of the equipment.
 - (ii) The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.
 - (iii) Maximum instrument reading measured by the method specified in 40 C.F.R. § 63.1282(b) after the leak or defect is successfully repaired or determined to be nonrepairable.
 - (iv) "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.
 - (v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.
 - (vi) The expected date of successful repair of the leak or defect if a leak or defect is not

- repaired within 15 calendar days.
- (vii) Dates of shutdowns that occur while the equipment is unrepaired.
 - (viii) The date of successful repair of the leak or defect.
- (8) For each inspection conducted in accordance with 40 C.F.R. § 63.1283(c) during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected.
 - (9) Records of glycol dehydration unit baseline operations calculated as required under 40 C.F.R. § 63.1281(e)(1).
 - (10) Records required in 40 C.F.R. § 63.1281(e)(3)(i) documenting that the facility continues to operate under the conditions specified in 40 C.F.R. § 63.1281(e)(2).
- (c) An owner or operator that elects to comply with the benzene emission limit specified in 40 C.F.R. § 63.1275(b)(1)(ii) shall document, to the Director's satisfaction, the following items:
 - (1) The method used for achieving compliance and the basis for using this compliance method; and
 - (2) The method used for demonstrating compliance with 0.90 megagrams per year of benzene.
 - (3) Any information necessary to demonstrate compliance as required in the methods specified in paragraphs (c)(1) and (c)(2) of this section.
 - (d) An owner or operator that is exempt from control requirements under 40 C.F.R. § 63.1274(d) shall maintain the records specified in paragraph (d)(1) or (d)(2) of this section, as appropriate, for each glycol dehydration unit that is not controlled according to the requirements of 40 C.F.R. § 63.1274(c).
 - (1) The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day), as determined in accordance with 40 C.F.R. § 63.1282(a)(1); or
 - (2) The actual average benzene emissions (in terms of benzene emissions per year), as determined in accordance with 40 C.F.R. § 63.1282(a)(2).
 - (e) Record the following when using a flare to comply with 40 C.F.R. § 63.1281(d)
 - (1) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
 - (2) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. § 63.1282(d)(2); and
 - (3) All hourly records and other recorded periods when the pilot flame is absent.

§ 63.1285 Reporting requirements.

- (a) The reporting provisions of subpart A, of this part that apply and those that do not apply to owners and operators of facilities subject to this subpart are listed in Table 2 of this subpart.
- (b) Each owner or operator of a facility subject to this subpart shall submit the information listed in paragraphs (b)(1) through (b)(6) of this section, except as provided in paragraph (b)(7) of this section.
 - (1) The initial notifications required for existing affected sources under 40 C.F.R. § 63.9(b)(2) shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by June 17, 2000, whichever is later. Affected sources that are major sources on or before June 17, 2000 and plan to be area sources by June 17, 2002 shall include in this notification a brief, nonbinding description of a schedule for the action(s) that are planned to achieve area source status.
 - (2) The date of the performance evaluation as specified in 40 C.F.R. § 63.8(e)(2), required only if the owner or operator is requested by the Director to conduct a performance evaluation for a continuous monitoring system. A separate notification of the performance evaluation is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.
 - (3) The planned date of a performance test at least 60 days before the test in accordance with 40 C.F.R. § 63.7(b). Unless requested by the Director, a site-specific test plan is not required by this subpart. If requested by the Director, the owner or operator must also submit the site-specific test plan required by 40 C.F.R. § 63.7(c) with the notification of the performance test.

- A separate notification of the performance test is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.
- (4) A Notification of Compliance Status Report as described in paragraph (d) of this section;
 - (5) Periodic Reports as described in paragraph (e) of this section; and
 - (6) Startup, shutdown, and malfunction reports, as specified in 40 C.F.R. § 63.10(d)(5), shall be submitted as required. Separate startup, shutdown, or malfunction reports as described in 40 C.F.R. § 63.10(d)(5)(i) are not required if the information is included in the Periodic Report specified in paragraph (e) of this section.
 - (7) Each owner or operator of a glycol dehydration unit subject to this subpart that is exempt from the control requirements for glycol dehydration unit process vents in 40 C.F.R. § 63.1275, is exempt from all reporting requirements for major sources in this subpart for that unit.
- (c) [Reserved]
- (d) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status Report as required under 40 C.F.R. § 63.9(h) within 180 days after the compliance date specified in 40 C.F.R. § 63.1270(d). In addition to the information required under 40 C.F.R. § 63.9(h), the Notification of Compliance Status Report shall include the information specified in paragraphs (d)(1) through (10) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If all of the information required under this paragraph have been submitted at any time prior to 180 days after the applicable compliance dates specified in 40 C.F.R. § 63.1270(d), a separate Notification of Compliance Status Report is not required. If an owner or operator submits the information specified in paragraphs (d)(1) through (10) of this section at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information.
- (1) If a closed-vent system and a control device other than a flare are used to comply with 40 C.F.R. § 63.1274, the owner or operator shall submit:
 - (i) The design analysis documentation specified in 40 C.F.R. § 63.1282(d)(4) of this subpart if the owner or operator elects to prepare a design analysis; or
 - (ii) If the owner or operator elects to conduct a performance test, the performance test results including the information specified in paragraphs (d)(1)(ii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in 40 C.F.R. § 63.1282(d)(3), and that the test conditions are representative of current operating conditions.
 - (A) The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in 40 C.F.R. § 63.1282(d)(3) s subpart; and
 - (B) The value of the monitored parameters specified in 40 C.F.R. § 63.1283(d) of this subpart, or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.
 - (iii) The results of the closed-vent system initial inspections performed according to the requirements in 40 C.F.R. § 63.1283(c)(2)(i) and (ii)
 - (2) If a closed-vent system and a flare are used to comply with 40 C.F.R. § 63.1274, the owner or operator shall submit performance test results including the information in paragraphs (d)(2)(i) and (ii) of this section.
 - (i) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. § 63.1282(d)(2) of this subpart, and
 - (ii) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.
 - (iii) The results of the closed-vent system initial inspections performed according to the requirements in 40 C.F.R. § 63.1283(c)(2)(i) and (ii).
 - (3) The owner or operator shall submit one complete test report for each test method used for a

- particular source.
- (i) For additional tests performed using the same test method, the results specified in paragraph (d)(1)(ii) of this section shall be submitted, but a complete test report is not required.
 - (ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.
- (4) For each control device other than a flare used to meet the requirements of 40 C.F.R. § 63.1274, the owner or operator shall submit the information specified in paragraphs (d)(4)(i) through (iii) of this section for each operating parameter required to be monitored in accordance with the requirements of 40 C.F.R. § 63.1283(d).
- (i) The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii).
 - (ii) An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in 40 C.F.R. § 63.1283(d)(5) of this subpart. This explanation shall include any data and calculations used to develop the value, and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of 40 C.F.R. § 63.1281(d)(1) or (e)(3)(ii).
 - (iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.
- (5) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.
- (6) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this subpart. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.
- (7) The owner or operator that elects to comply with the requirements of 40 C.F.R. § 63.1275(b)(1)(ii) shall submit the records required under 40 C.F.R. § 63.1284(c).
- (8) The owner or operator shall submit an analysis demonstrating whether an affected source is a major source using the maximum throughput calculated according to 40 C.F.R. § 63.1270(a).
- (9) The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.
- (10) The owner or operator shall submit the analysis prepared under 40 C.F.R. § 63.1281(e)(2) to demonstrate that the conditions by which the facility will be operated to achieve an overall HAP emission reduction of 95.0 percent through process modifications or a combination of process modifications and one or more control devices.
- (e) *Periodic Reports.* An owner or operator shall prepare Periodic Reports in accordance with paragraphs (e)(1) and (2) of this section and submit them to the Director.
- (1) An owner or operator shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due.
 - (2) The owner or operator shall include the information specified in paragraphs (e)(2)(i) through (ix) of this section, as applicable.

- (i) The information required under 40 C.F.R. § 63.10(e)(3). For the purposes of this subpart and the information required under 40 C.F.R. § 63.10(e)(3), excursions (as defined in 40 C.F.R. § 63.1283(d)(6)) shall be considered excess emissions.
 - (ii) A description of all excursions as defined in 40 C.F.R. § 63.1283(d)(6) of this subpart that have occurred during the 6-month reporting period.
 - (A) For each excursion caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), as specified in 40 C.F.R. § 63.1283(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.
 - (B) For each excursion caused when the 30-day average condenser control efficiency is less than 95.0 percent, as specified in 40 C.F.R. § 63.1283(d)(6)(ii), the report must include the 30-day average values of the condenser control efficiency, and the date and duration of the period that the excursion occurred.
 - (C) For each excursion caused by lack of monitoring data, as specified in 40 C.F.R. § 63.1283(d)(6)(iii), the report must include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected.
 - (iii) For each inspection conducted in accordance with 40 C.F.R. § 63.1283(c) during which a leak or defect is detected, the records specified in 40 C.F.R. § 63.1284(b)(7) must be included in the next Periodic Report.
 - (iv) For each closed-vent system with a bypass line subject to 40 C.F.R. § 63.1281(c)(3)(i)(A), records required under 40 C.F.R. § 63.1284(b)(4)(iii) of all periods when the vent stream is diverted from the control device through a bypass line. For each closed-vent system with a bypass line subject to 40 C.F.R. § 63.1281(c)(3)(i)(B), records required under 40 C.F.R. § 63.1284(b)(4)(iv) of all periods in which the seal or closure mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.
 - (v) If an owner or operator elects to comply with 40 C.F.R. § 63.1275(b)(1)(ii), the records required under 40 C.F.R. § 63.1284(c)(3).
 - (vi) The information in paragraphs (e)(2)(vi)(A) and (B) of this section shall be stated in the Periodic Report, when applicable.
 - (A) No excursions.
 - (B) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.
 - (vii) Any change in compliance methods as specified in 40 C.F.R. § 63.1282(e).
 - (viii) If the owner or operator elects to comply with 40 C.F.R. § 63.1275(c)(2), the records required under 40 C.F.R. § 63.1284(b)(10)
 - (ix) For flares, the records specified in 40 C.F.R. § 63.1284(e).
- (f) *Notification of process change.* Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under paragraph (e) of this section, whichever is sooner. The report shall include:
- (1) A brief description of the process change;
 - (2) A description of any modification to standard procedures or quality assurance procedures;
 - (3) Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of this section; and
- (4) Information required by the Notification of Compliance Status Report under paragraph (d) of this section for changes involving the addition of processes or equipment.

Appendix G

The following reflect 40 C.F.R 63 Subpart ZZZZ requirements as of June 13, 2005 and are subject to change.

(Note: In this section “this subpart” means 40 C.F.R.63 Subpart ZZZZ)

§63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations

§63.6585 Am I subject to this subpart?

You are subject to this section if you own or operate a stationary RICE at a major source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 C.F.R. §1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

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

This subpart applies to each affected source.

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
 - (1) Existing stationary RICE. A stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002. A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
 - (2) New stationary RICE. A stationary RICE is new if you commenced construction of the stationary RICE on or after December 19, 2002.
 - (3) Reconstructed stationary RICE. A stationary RICE is reconstructed if you meet the definition of reconstruction in 40 C.F.R. § 63.2 and reconstruction is commenced on or after December 19, 2002.
- (b) Stationary RICE subject to limited requirements.
 - (1) An affected source which meets either of the criteria in paragraph (b)(1)(i) through (ii) of this section does not have to meet the requirements of this section and of 40 C.F.R.63subpart A except for the initial notification requirements of 40 C.F.R. § 63.6645(d).
 - (i) The stationary RICE is a new or reconstructed emergency stationary RICE; or
 - (ii) The stationary RICE is a new or reconstructed limited use stationary RICE.
 - (2) N/A
 - (3) A stationary RICE which is an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE, an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE, an existing compression ignition (CI) stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE that

combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, does not have to meet the requirements of this section and of 40 C.F.R.63subpart A. No initial notification is necessary.

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

- (a) Affected sources.
 - (1) If you have an existing stationary RICE, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007.
 - (2) If you start up your new or reconstructed stationary RICE before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
 - (3) If you start up your new or reconstructed stationary RICE after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (b) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
 - (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
 - (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with this subpart within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in 40 C.F.R. § 63.6645 and in 40 C.F.R. part 63, subpart A.

§63.6600 What emission limitations and operating limitations must I meet?

- (a) If you own or operate an existing, new, or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE located at a major source of HAP emissions, you must comply with the emission limitations in Table 1(a) of this section and the operating limitations in Table 1(b) of this section which apply to you.
- (b) If you own or operate a new or reconstructed 2SLB or 4SLB stationary RICE or a new or reconstructed CI stationary RICE located at a major source of HAP emissions, you must comply with the emission limitations in Table 2(a) of this section and the operating limitations in Table 2(b) of this section which apply to you.
- (c) If you own or operate: an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, or an existing CI stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE, you do not need to comply with the emission limitations in Tables 1(a) and 2(a) of this section or operating limitations in Tables 1(b) and 2(b) of this section.

§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 section that apply to you at all times, except during periods of startup, shutdown, and malfunction.
- (b) If you must comply with emission limitations and operating limitations, you must operate and maintain your stationary RICE, including air pollution control 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.

§63.6610 By what date must I conduct the initial performance tests or other initial compliance

demonstrations?

- (a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 of this section that apply to you within 180 days after the compliance date that is specified for your stationary RICE in 40 C.F.R. § 63.6595 and according to the provisions in 40 C.F.R. § 63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to 40 C.F.R. § 63.7(a)(2)(ix).
- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to 40 C.F.R. § 63.7(a)(2)(ix).
- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
 - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
 - (2) The test must not be older than 2 years.
 - (3) The test must be reviewed and accepted by the Director.
 - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
 - (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

§63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this section.

§63.6620 What performance tests and other procedures must I use?

- (a) You must conduct each performance test in Tables 3 and 4 of this section that applies to you.
- (b) Each performance test must be conducted according to the requirements in 40 C.F.R. § 63.7(e)(1) and under the specific conditions that this section specifies in Table 4. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.
- (c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 C.F.R. § 63.7(e)(1).
- (d) You must conduct three separate test runs for each performance test required in this section, as specified in 40 C.F.R. § 63.7(e)(3). Each test run must last at least 1 hour.
- (e) You must use procedure specified in 40 C.F.R. § 63.6620(e) to determine compliance with the percent reduction requirement.
- (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Director for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Director.
- (g) If you petition the Director for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

- (1) Identification of the specific parameters you propose to use as operating limitations;
 - (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
 - (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
 - (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
 - (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Director for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;
 - (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
 - (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
 - (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
 - (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
 - (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
 - (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
- (i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

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

- (a) If you elect to install a CEMS as specified in Table 5 of this section, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO₂ at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.
 - (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 C.F.R. part 60, appendix B.
 - (2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in 40 C.F.R. § 63.8 and according to the applicable performance specifications of 40 C.F.R. part 60, appendix B as well as daily

- and periodic data quality checks in accordance with 40 C.F.R. part 60, appendix F, procedure 1.
- (3) As specified in 40 C.F.R. § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
 - (4) The CEMS data must be reduced as specified in 40 C.F.R. § 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.
- (b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this section, you must install, operate, and maintain each CPMS according to the requirements in 40 C.F.R. § 63.8.
 - (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

§63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

- (a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this section.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1(b) and 2(b) of this section that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 C.F.R. § 63.6645.

§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.

§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 Tables 1(a) and 1(b) and Tables 2(a) and 2(b) of this section that apply to you according to methods specified in Table 6 of this section.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1(a) and 1(b) and Tables 2(a) and 2(b) of this section 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 40 C.F.R. § 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.
- (c) During periods of startup, shutdown, and malfunction, you must operate in accordance with your

- startup, shutdown, and malfunction plan.
- (d) Consistent with 40 C.F.R. §§63.6(e) and 63.7(e)(1), deviations from the emission or operating limitations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Director's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan. For new and reconstructed stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations.
 - (e) You must also report each instance in which you did not meet the requirements in Table 8 of this subpart that apply to you. If you own or operate an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing CI stationary RICE, an existing emergency stationary RICE, an existing limited use emergency stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you do not need to comply with the requirements in Table 8 of this subpart. If you own or operate a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE, you do not need to comply with the requirements in Table 8 of this subpart, except for the initial notification requirements.

§63.6645 What notifications must I submit and when?

- (a) You must submit all of the notifications in 40 C.F.R. §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified.
- (b) As specified in 40 C.F.R. § 63.9(b)(2), if you must comply with the emission and operating limitations, and you start up your stationary RICE before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.
- (c) If you start up your new or reconstructed stationary RICE on or after the August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (d) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with 40 C.F.R. § 63.6590(b), your notification should include the information in 40 C.F.R. § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE).
- (e) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 C.F.R. § 63.7(b)(1).
- (f) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this section, you must submit a Notification of Compliance Status according to 40 C.F.R. § 63.9(h)(2)(ii).
 - (1) For each initial compliance demonstration required in Table 5 of this section that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
 - (2) For each initial compliance demonstration required in Table 5 of this section that includes a performance test conducted according to the requirements in Table 4 to this section, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to 40 C.F.R. § 63.10(d)(2).

§63.6650 What reports must I submit and when?

- (a) You must submit each report in Table 7 of this section that applies to you.

- (b) Unless the Director has approved a different schedule for submission of reports under 40 C.F.R. § 63.10(a), you must submit each report by the date in Table 7 of this section and according to the requirements in paragraphs (b)(1) through (5) of this section.
- (1) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 C.F.R. § 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in 40 C.F.R. § 63.6595.
 - (2) The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in 40 C.F.R. § 63.6595.
 - (3) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - (4) Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
 - (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 C.F.R. part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 C.F.R. 70.6 (a)(3)(iii)(A) or 40 C.F.R. 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
- (1) Company name and address.
 - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) If you had a startup, shutdown, or malfunction during the reporting period, the compliance report must include the information in 40 C.F.R. § 63.10(d)(5)(i).
 - (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
 - (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 C.F.R. § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- (d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
 - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this section, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
- (1) The date and time that each malfunction started and stopped.
 - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (3) The date, time, and duration that each CMS was out-of-control, including the information in 40 C.F.R. § 63.8(c)(8).
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

- (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
 - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
 - (9) A brief description of the stationary RICE.
 - (10) A brief description of the CMS.
 - (11) The date of the latest CMS certification or audit.
 - (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 C.F.R. part 70 or 71 must report all deviations as defined in this section in the semiannual monitoring report required by 40 C.F.R. 70.6(a)(3)(iii)(A) or 40 C.F.R. 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 C.F.R. 70.6 (a)(3)(iii)(A) or 40 C.F.R. 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Director has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
- (1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
 - (2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.
 - (3) Any problems or errors suspected with the meters.

§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)(3), (b)(1) through (b)(3) and (c) of this section.
- (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 40 C.F.R. § 63.10(b)(2)(xiv).
 - (2) The records in 40 C.F.R. § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - (3) Records of performance tests and performance evaluations as required in 40 C.F.R. § 63.10(b)(2)(viii).
- (b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
- (1) Records described in 40 C.F.R. § 63.10(b)(2)(vi) through (xi).
 - (2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 C.F.R. § 63.8(d)(3).

- (3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 C.F.R. § 63.8(f)(6)(i), if applicable.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
- (d) You must keep the records required in Table 6 of this section to show continuous compliance with each emission or operating limitation that applies to you.

§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 40 C.F.R. § 63.10(b)(1).
- (b) As specified in 40 C.F.R. § 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 on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. § 63.10(b)(1). You can keep the records off-site for the remaining 3 years.

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

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

§63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in 40CFR§63.6675.

Table 1a to Subpart ZZZZ of Part 63. Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE	
As stated in 40 C.F.R. §§63.6600 and 63.6640, you must comply with the following emission limitations for existing, new and reconstructed 4SRB stationary RICE:	
For each . . .	You must meet one of the following emission limitations . . .
1. 4SRB stationary RICE	a. reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007. OR b. limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ .

Table 1b to Subpart ZZZZ of Part 63. Operating Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE	
As stated in 40 C.F.R. §§63.6600, 63.6630 and 63.6640, you must comply with the following operating emission limitations for existing, new and reconstructed 4SRB stationary RICE:	
For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and using NSCR	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than two inches of water from the pressure drop across the catalyst measured during the initial performance test; AND b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750°F and less than or equal to 1250°F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent, if applicable), and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and not using NSCR	Comply with any operating limitations approved by the Director.

Table 2a to Subpart ZZZZ of Part 63. Emission Limitations for New and Reconstructed Lean Burn and Compression Ignition Stationary RICE	
As stated in 40 C.F.R. §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE:	
For each . . .	You must meet the following emission limitation . . .
1. 2SLB stationary RICE	a. reduce CO emissions by 58 percent or more; OR b. limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O ₂ . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O ₂ until June 15, 2007.
2. 4SLB stationary RICE	a. reduce CO emissions by 93 percent or more; OR b. limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O ₂ .
3. CI stationary RICE	a. reduce CO emissions by 70 percent or more; OR b. limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O ₂ .

Table 2b to Subpart ZZZZ of Part 63. Operating Limitations for New and Reconstructed Lean Burn and Compression Ignition Stationary RICE	
As stated in 40 C.F.R. §§63.6600, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE:	
For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the	a. maintain your catalyst so that the pressure drop across

requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	the catalyst does not change by more than two inches of water from the pressure drop across the catalyst that was measured during the initial performance test; AND b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst	comply with any operating limitations approved by the Director.

Table 3 to Subpart ZZZZ of Part 63. Subsequent Performance Tests

As stated in 40 C.F.R. §§63.6615 and 63.6620 (Sections 14.7 & 14.8 of this permit), you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE	reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually ^a .
2. 4SRB stationary RICE with a brake horsepower ≥5,000	reduce formaldehyde emissions	Conduct subsequent performance tests semiannually ^a .
3. stationary RICE (all stationary RICE subcategories and all brake horsepower ratings)	limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually ^a .
a. After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.		

Table 4 to Subpart ZZZZ of Part 63. Requirements for Performance Tests – Please refer to 40 C.F.R.63 Subpart ZZZZ, Table4.

Table 5 to Subpart ZZZZ of Part 63. Initial Compliance with Emission Limitations and Operating Limitations

As stated in 40 C.F.R. §§63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. reduce CO emissions and using oxidation catalyst, and using a CPMS	i. the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; AND ii. you have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in 40 C.F.R. § 63.6625(b); AND iii. you have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. reduce CO emissions and not using oxidation catalyst	i. the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction. AND ii. you have installed a CPMS to continuously monitor operating parameters approved by the Director (if any) according to the requirements in 40 C.F.R. § 63.6625(b); AND iii. you have recorded the approved operating parameters (if any) during the initial performance test.
3. 2SLB and 4SLB stationary CE and CI stationary RICE	a. reduce CO emissions, and using a CEMS	i. you have installed a CEMS to continuously monitor CO and either O2 or CO2 at both the inlet and outlet of the oxidation catalyst according to the requirements in 40 C.F.R. § 63.6625(a); AND ii. you have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 C.F.R. part 60, appendix B;

		<p>AND</p> <p>iii. the average reduction of CO calculated using 40 C.F.R. § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.</p>
4. 4SRB stationary RICE	a. reduce formaldehyde emissions and using NSCR	<p>i. the average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction;</p> <p>AND</p> <p>ii. you have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in 40 C.F.R. § 63.6625(b);</p> <p>AND</p> <p>you have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
5. 4SRB stationary RICE	a. reduce formaldehyde emissions and not using NSCR	<p>i. the average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction.</p> <p>AND</p> <p>ii. you have installed a CPMS to continuously monitor operating parameters approved by the Director (if any) according to the requirements in 40 C.F.R. § 63.6625(b);</p> <p>AND</p> <p>iii. you have recorded the approved operating parameters (if any) during the initial performance test.</p>
6. stationary RICE	a. limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	<p>i. the average formaldehyde concentration, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation.</p> <p>AND</p> <p>ii. you have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in 40 C.F.R. § 63.6625(b);</p> <p>AND</p> <p>iii. you have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
7. stationary RICE	a. limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	<p>i. the average formaldehyde concentration, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation.</p> <p>AND</p> <p>ii. you have installed a CPMS to continuously monitor operating parameters approved by the Director (if any) according to the requirements in 40 C.F.R. § 63.6625(b);</p> <p>AND</p> <p>iii. you have recorded the approved operating parameters (if any) during the initial performance test.</p>

Table 6 to Subpart ZZZZ of Part 63. Continuous Compliance with Emission Limitations and Operating Limitations

As stated in 40 C.F.R. § 63.6640 (Section 14.12 of this permit), you must continuously comply with the emissions and operating limitations as required by the following:

For each . . .	Complying with the Requirement to . . .	You must demonstrate continuous compliance by . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. reduce CO emissions and using an oxidation catalyst, and using a CPMS	<p>i. conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;</p> <p>AND</p> <p>ii. collecting the catalyst inlet temperature data according to 40 C.F.R. § 63.6625(b);</p> <p>AND</p> <p>iii. reducing these data to 4-hour rolling averages;</p> <p>AND</p>

		<p>iv. maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature established during the initial performance test; AND</p> <p>v. measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>
2. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. reduce CO emissions and not using an oxidation catalyst, and using a CPMS	<p>i. conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved^a; AND</p> <p>ii. collecting the approved operating parameter (if any) data according to 40 C.F.R. § 63.6625(b); AND</p> <p>iii. reducing these data to 4-hour rolling averages; AND</p> <p>iv. maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>
3. 2SLB and 4SLB stationary RICE and CI stationary RICE	a. reduce CO emissions and using a CEMS	<p>i. collecting the monitoring data according to 40 C.F.R. § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to 40 C.F.R. § 63.6620; AND</p> <p>ii. demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; AND</p> <p>iii. conducting an annual RATA of your CEMS using PS 3 and 4A of 40 C.F.R. part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 C.F.R. part 60, appendix F, procedure 1.</p>
4. 4SRB stationary RICE	a. reduce formaldehyde emissions and using NSCR	<p>i. collecting the catalyst inlet temperature data according to 40 C.F.R. § 63.6625(b); AND</p> <p>ii. reducing these data to 4-hour rolling averages; AND</p> <p>iii. maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature established during the performance test; AND</p> <p>measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>
5. 4SRB stationary RICE	a. reduce formaldehyde emissions and not using NSCR	<p>i. collecting the approved operating parameter (if any) data according to 40 C.F.R. § 63.6625(b); AND</p> <p>ii. reducing these data to 4-hour rolling averages; AND</p> <p>iii. maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>
6. 4SRB stationary RICE with a brake Horsepower ≥ 5,000	Reduce formaldehyde Emissions	conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved ^a .
7. stationary RICE	limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	<p>i. conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit^a. AND</p> <p>ii. collecting the catalyst inlet temperature data according to 40 C.F.R. § 63.6625(b); AND</p> <p>iii. reducing these data to 4-hour rolling averages; AND</p> <p>iv. maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature established during the initial performance test;</p>

		AND measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. stationary RICE	limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a AND ii. collecting the approved operating parameter (if any) data according to 40 C.F.R. § 63.6625(b); AND ii. reducing these data to 4-hour rolling averages; AND iii. maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
<p>^aAfter you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.</p>		

Table 7 to Subpart ZZZZ of Part 63. Requirements for Reports		
As stated in 40 C.F.R. § 63.6650 (Section 14.14 of this permit), you must comply with the following requirements for reports:		
You must submit a(n)	The report must contain ...	You must submit the report ...
1. compliance report	<p>a. if there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 C.F.R. § 63.8(c)(7), a statement that there were not periods during which the CMS was outof-control during the reporting period. OR</p> <p>b. if you had a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 C.F.R. § 63.6650(d) (Section 14.14(d) of this permit). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 C.F.R. § 63.8(c)(7), the information in 40 C.F.R. § 63.6650(e). OR</p> <p>c. if you had a startup, shutdown or malfunction during the reporting period, the information in 40 C.F.R. § 63.10(d)(5)(i). i. semiannually according to the requirements in 40 C.F.R. § 63.6650(b).</p>	<p>i. semiannually according to the requirements in 40 C.F.R. § 63.6650(b).</p> <p>i. semiannually according to the requirements in 40 C.F.R. § 63.6650(b) .</p> <p>i. semiannually according to the requirements in 40 C.F.R. § 63.6650(b).</p>
2. an immediate startup, shutdown, and malfunction report if actions addressing the startup, shutdown, or malfunction were inconsistent with your startup, shutdown, or malfunction plan during the reporting period.	<p>a. actions taken for the event. AND</p> <p>b. the information in 40 C.F.R. § 63.10(d)(5)(ii).</p>	<p>i. by fax or telephone within 2 working days after starting actions inconsistent with the plan.</p> <p>i. by letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authorities. (40 C.F.R. § 63.10(d)(5)(ii))</p>
3. Report	<p>a. the fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis. AND</p> <p>b. the operating limits provided in your federally enforceable permit, and any deviations from these limits. AND</p> <p>c. any problems or errors suspected with the meters</p>	<p>annually, according to the requirements in 40 C.F.R. § 63.6650.</p>

Table 8 to Subpart ZZZZ of Part 63. Applicability of General Provisions to Subpart ZZZZ – Please see 40 C.F.R.63 Subpart ZZZZ

Appendix H

The following reflect 40 CFR 63 Subpart DDDDD requirements as of June 13, 2005 and are subject to change.

If a facility has Boilers and Process Heaters not specified in Section 15.0.1, the facility shall not be eligible to operate under this General permit. Also please see facilitywide requirement Section 3.1.16.

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP as defined in §63.2 or §63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in §63.7491.

§ 63.7490 What is the affected source of this subpart?

- (a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.
 - (1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in §63.7575.
 - (2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source as defined in §63.7575.
- (b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.
- (c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in §63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.
- (d) A boiler or process heater is existing if it is not new or reconstructed.

§ 63.7495 When do I have to comply with this subpart?

- (a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.
- (b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.
- (c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.
 - (1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

- (2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.
- (d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in §63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

- (a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.
 - (1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under §63.7507.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

- (a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.
- (b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
- (c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.
- (d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).
 - (2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.
 - (i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);
 - (ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and
 - (iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).
- (e) If you have an applicable emission limit or work practice standard, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

§ 63.7506 Do any boilers or process heaters have limited requirements?

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in §63.9(b) (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(c) The affected boilers and process heaters listed in paragraphs (c)(3) and (4) of this section are not subject to the initial notification requirements in §63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part).

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

Testing, Fuel Analyses, and Initial Compliance Requirements**§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?**

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to §63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, establishing operating limits according to §63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to §63.7525. For affected sources that burn a single type of fuel, you are exempted from the initial compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart.

(c) If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to this subpart.

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 70660, Dec. 6, 2006]

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

- (a) You must conduct all applicable performance tests according to §63.7520 on an annual basis. Annual performance tests must be completed between 10 and 12 months after the previous performance test.
- (e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to §63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.
- (g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to §63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in §63.7550.

§ 63.7520 What performance tests and procedures must I use?

- (a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c) if you elect to demonstrate compliance through performance testing.
- (b) You must conduct each performance test according to the requirements in Table 5 to this subpart.
- (d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.
- (e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.
- (f) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

Continuous Compliance Requirements**§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?**

- (a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).
- (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 (or collect data at all required intervals) at all times that the affected source is operating.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

- (a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice

standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

- (1) Following the date on which the initial performance test is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.
- (b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7550.
- (c) [Reserved]
- (d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

[69 FR 55253, Sept. 13, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 71 FR 70662, Dec. 6, 2006]

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.
- (b) As specified in §63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.
 - (1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by §63.9(b)(2).
 - (2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by §63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.
- (c) As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.
- (d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.
- (e) If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must

submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

- (1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.
- (2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.
- (3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.
- (4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.
- (5) Identification of whether you plan to demonstrate compliance by emissions averaging.
- (6) A signed certification that you have met all applicable emission limits and work practice standards.
- (7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.
- (8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.
- (9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550 What reports must I submit and when?

- (a) You must submit each report in Table 9 to this subpart that applies to you.
- (b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.
 - (1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495.
 - (2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.7495.
 - (3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - (4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

- (5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.
- (c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.
- (1) Company name and address.
 - (2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.
 - (5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.
 - (6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of §63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).
 - (7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of §63.7530, the maximum TSM input operating limit using Equation 6 of §63.7530, or the maximum mercury input operating limit using Equation 7 of §63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.
 - (8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.
 - (9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).
 - (10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you,

and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

- (11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.
- (d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.
- (1) The total operating time of each affected source during the reporting period.
 - (2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.
 - (3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.
 - (4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.
- (e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in §63.7505(d).
- (1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.* , what you deviated from).
 - (2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
 - (5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
 - (7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
 - (8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other

control devices.

- (9) A brief description of the source for which there was a deviation.
 - (10) A brief description of each CMS for which there was a deviation.
 - (11) The date of the latest CMS certification or audit for the system for which there was a deviation.
 - (12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.
- (1) Company name and address.
 - (2) Identification of the affected unit.
 - (3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.
 - (4) Type of alternative fuel that you intend to use.
 - (5) Dates when the alternative fuel use is expected to begin and end.

§ 63.7555 What records must I keep?

- (a) You must keep records according to paragraphs (a)(1) through (3) of this section.
- (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 or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).
 - (2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - (3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).
- (c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.
- (d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs

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

- (1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.
 - (2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.
- (e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.
- (1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.
 - (2) Fuel use records for the days the boiler or process heater was operating.

§ 63.7560 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 on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

- (a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.
 - (1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g).
 - (2) Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).
 - (3) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
 - (4) Approval of major change to monitoring under §63.8(f) and as defined in §63.90.

(5) Approval of major change to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.7575 What definitions apply to this subpart?

Please refer to 40 C.F.R § 63.7575

Tables to Subpart DDDDD of Part 63**Table 1 to Subpart DDDDD of Part 63—Emission Limits and Work Practice Standards**

As stated in §63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
7. New reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
8. New or reconstructed limited use gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in §63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
5. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points	Method 1 in appendix A to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see §63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see §63.14(i)).
	c. Measure the moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see §63.14(b)) when the fuel is natural gas.

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in §63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.7550(c)(1) through (11); and	Semiannually according to the requirements in §63.7550(b).
	b. If there are no deviations from any emission limitation (emission limit and	

	operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7550(e); and	
	d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i)	
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b. The information in §63.10(d)(5)(ii)	ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

Please refer to **Table 10 to 40 C.F.R 63 Subpart DDDDD**

Appendix I

The following reflect 40 CFR 60 Subpart Dc requirements as of June 13, 2005 and are subject to change.

Note: In this section “this subpart” means 40 C.F.R. 60 Subpart Dc.

Note: In this section “this part” means 40 C.F.R. Part 60.

§ 60.40c Applicability and delegation of authority.

- (a) Except as provided in paragraph (d) of 40 C.F.R. § 60.40c, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

§ 60.41c Definitions.

Please refer to 40 C.F.R § 60.41c

§ 60.48c Reporting and recordkeeping requirements.

- (a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:
 - (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
 - (2) N/A
 - (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
- (g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.
- (i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

Appendix J

The following reflect 45CSR1 requirements applicable to Stationary Internal Combustion Engines as of February 28, 2007 and are subject to change:

45CSR§1-1. General.

1.1. Scope. -- This rule establishes:

- 1.1.b. General provisions and the definitions, applicability, ozone season NO_x reduction, compliance plan, monitoring, recordkeeping and reporting requirements for emissions of NO_x from affected stationary internal combustion engines set forth in section 90. Such engines are not subject to or eligible for participation in the NO_x Budget Trading Program as provided in sections 4 through 89.

45CSR§1-90. Requirements for Stationary Internal Combustion Engines.

- 90.1. Any large NO_x SIP Call engine or any affected engine or affected NO_x emitting equipment under subsection 90.4 shall not be eligible for participation in the NO_x Budget Trading Program, or subject to requirements under sections 4 through 89. Any such engine or NO_x emitting equipment shall not be eligible for an allocation from the state NO_x trading budget under subsection 40.1.
- 90.2. Applicability. -- The requirements of section 90 shall apply to the owner or operator of any large NO_x SIP Call engine.
- 90.3. Ozone season NO_x reduction. -- After May 1, 2007, the following owners or operators shall reduce ozone season NO_x emissions by an amount equal to or greater than the applicable ozone season NO_x reduction listed below. The applicable ozone season NO_x reduction is binding on the listed owners or operators, their successors and assigns:

Company	Ozone Season NO _x Reduction
Columbia Gas Transmission	235 tons

- 90.4. Compliance plan. -- After May 1, 2007, an owner or operator of a large stationary internal combustion engine under subsection 90.2 shall not operate such engine in the period May 1 through September 30 of 2007 and any subsequent year unless the owner or operator demonstrates the applicable ozone season NO_x reduction under subsection 90.3 through the requirements of an approved compliance plan. The compliance plan shall meet the following provisions:
- 90.4.c. The compliance plan shall demonstrate quantifiable and enforceable NO_x emission reductions equal to or greater than the applicable ozone season NO_x reduction set forth in subsection 90.3, taking into account any creditable reduction in NO_x emissions under subdivisions 90.4.e, 90.4.f, 90.4.g, 90.4.h or 90.4.i;
- 90.4.d. The compliance plan may include and affect some or all stationary internal combustion engines or other significant NO_x emitting equipment at an individual facility, at several facilities, or at all facilities in West Virginia that are controlled by the same owner or operator;
- 90.4.e. The compliance plan may include credit for reductions in NO_x emissions due to the installation and operation of NO_x control equipment on large stationary internal combustion engines under subsection 90.2. The owner or operator shall demonstrate to the satisfaction of the Secretary any creditable reductions in NO_x emissions from the installation and operation of such NO_x control equipment. The credit for reductions in NO_x emissions shall be quantified based on the difference between uncontrolled and controlled NO_x emission rates, and ozone season operating hours;
- 90.4.f. The compliance plan may include credit for reductions in NO_x emissions due to the installation and operation of NO_x control equipment on uncontrolled stationary internal combustion engines not under subsection 90.2. The

owner or operator shall demonstrate to the satisfaction of the Secretary any creditable reductions in NO_x emissions from the installation and operation of such NO_x control equipment. Creditable reductions shall be limited to reductions achieved after 1995 and from controls that were not part of the NO_x SIP Call engine inventory. The credit for reductions in NO_x emissions shall be quantified based on the difference between uncontrolled and controlled NO_x emission rates, and ozone season operating hours;

- 90.4.g. The compliance plan may include credit for reductions in NO_x emissions due to replacement of any stationary internal combustion engines or other significant NO_x-emitting equipment. The owner or operator shall demonstrate to the satisfaction of the Secretary that the historic ozone season load capacity of any stationary internal combustion engine or other significant NO_x-emitting equipment no longer in operation has been or would be replaced by one or more new stationary internal combustion engines, electric motors or turbines during each ozone season. The credit for reductions in NO_x emissions shall be quantified based on the replaced engine's or other significant NO_x-emitting equipment's ozone season NO_x emission rate and ozone season operating hours, and the projected emission rate and ozone season operating hours of any new replacement stationary internal combustion engines, electric motors or turbines;
- 90.4.h. The compliance plan may include credit for reductions in NO_x emissions due to reductions from shifting historic load capacity from an uncontrolled engine to a controlled engine, electric motor or turbine. The owner or operator shall demonstrate to the satisfaction of the Secretary that a quantifiable net reduction in NO_x emissions has occurred or will occur due to a direct shift of ozone season load capacity from an uncontrolled engine to a controlled engine, electric motor or turbine. The credit for reductions in NO_x emissions shall be quantified based on the uncontrolled engine's historic ozone season load capacity, NO_x emission rate, ozone season operating hours, and the shifted ozone season load capacity, NO_x emission rate and ozone season operating hours of the controlled stationary internal combustion engine, electric motor or turbine;
- 90.4.i. The compliance plan may include credit for reductions in NO_x emissions due to the installation and operation of NO_x controls on significant NO_x emitting equipment other than stationary internal combustion engines. The owner or operator shall demonstrate to the satisfaction of the Secretary any creditable reductions in NO_x emissions from such NO_x emitting equipment. Creditable reductions shall be limited to reductions achieved after 1995 and from controls that were not part of the NO_x SIP Call inventory. The credit for reductions in NO_x emissions shall be quantified based on the difference between NO_x emission rates prior to installation of controls and controlled NO_x emission rates, and ozone season operating hours;
- 90.4.j. The compliance plan shall include the following:
- 90.4.j.1. A list of affected engines or affected NO_x emitting equipment subject to the plan, including the manufacturer, model number, facility location and facility identification number;
- 90.4.j.2. The projected ozone season hours of operation for each affected engine or affected NO_x emitting equipment and supporting documentation;
- 90.4.j.3. A description of the NO_x emission controls installed, or to be installed, on each affected engine or affected NO_x emitting equipment, date or proposed date of installation, and documentation to support the controlled NO_x emission rates;
- 90.4.j.4. The uncontrolled and controlled NO_x emission rates in lb/hr and tons per ozone season for each affected engine or affected NO_x emitting equipment, as applicable;
- 90.4.j.5. A numerical demonstration that the sum of creditable NO_x emission reductions (in tons) obtained from all affected engines or affected NO_x emitting equipment included under a compliance plan will be equivalent to or greater than the owner or operator's applicable ozone season NO_x reduction under subsection 90.3, taking into account any creditable reductions in NO_x emissions under subdivisions 90.4.e, 90.4.f, 90.4.g, 90.4.h or 90.4.i; and
- 90.4.j.6. Performance test protocol and provisions for periodic monitoring, reporting and recordkeeping for

each affected engine or affected NO_x emitting equipment.

- 90.4.k. Any creditable reductions in NO_x emissions under subdivisions 90.4.e, 90.4.f, 90.4.g, 90.4.h or 90.4.i shall be quantifiable and enforceable through limitations included in a federally enforceable permit or compliance order; and
- 90.4.l. Any owner or operator with an approved compliance plan under subsection 90.4 may amend the plan with the written approval of the Secretary. Any NO_x emission rate or limitation included in such an amendment must be reflected in a federally enforceable permit or compliance order. The Secretary shall either approve by order or disapprove by certified mail the amended compliance plan within 90 days of submission, and notify the Administrator of the compliance plan amendment approval upon issuance of order.
- 90.5. Monitoring requirements. -- Any owner or operator of an affected engine or affected NO_x emitting equipment subject to a compliance plan under subsection 90.4 shall comply with the following monitoring requirements for each affected engine or affected NO_x emitting equipment:
- 90.5.b. For the ozone season beginning in 2007, and each ozone season thereafter, the owner or operator shall perform periodic monitoring sufficient to yield reliable data which demonstrate compliance with the limitations specified in subdivision 90.4.k. Such periodic monitoring shall include:
- 90.5.b.1. A continuous emission monitoring system that complies with 40 CFR Part 75 or 40 CFR Part 60 and the quality assurance procedures specified in 40 CFR Part 60, Appendix F; or
- 90.5.b.2. Performance tests consistent with the requirements of 40 CFR Part 60, Appendix A, or portable monitors using ASTM D6522-00; and
- 90.5.b.2.A. A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance that each affected engine or affected NO_x emitting equipment's emissions are consistent with the requirements of a compliance plan under subsection 90.4. Any such parametric monitoring program must be approved by the Secretary; or
- 90.5.b.2.B. A predictive emissions measurement system that relies on automated data collection from instruments. Any such predictive emissions measurement system must be approved by the Secretary.
- 90.6. Recordkeeping requirements. -- Any owner or operator of an affected engine or affected NO_x emitting equipment subject to a compliance plan under subsection 90.4 shall comply with the following recordkeeping requirements:
- 90.6.a. Maintain all records necessary to demonstrate compliance with the requirements of the compliance plan and subsection 90.6 for a period of five calendar years at the facility where an affected engine or affected NO_x emitting equipment is located. Such records shall be made available to the Secretary or Administrator upon request; and
- 90.6.b. For each affected engine or affected NO_x emitting equipment subject to a compliance plan under subsection 90.4, the owner or operator shall maintain records of:
- 90.6.b.1. Identification and location of each affected engine or affected NO_x emitting equipment;
- 90.6.b.2. Calendar date of record;
- 90.6.b.3. The number of hours the affected engine or affected NO_x emitting equipment is operated during each ozone season compared to projected operating hours;
- 90.6.b.4. Type and quantity of fuel combusted; and

90.6.b.5. The results of all compliance tests.

- 90.7. Reporting requirements. -- Any owner or operator of an affected engine or affected NO_x emitting equipment subject to a compliance plan under subsection 90.4 shall:
- 90.7.a. Notify the Secretary of any performance test under subdivision 90.5.a or paragraph 90.5.b.2 at least 15 days in advance of such test;
 - 90.7.b. Submit results of all performance tests to the Secretary within 30 days of completion of such tests; and
 - 90.7.c. Submit a report which documents the total ozone season NO_x emissions and certifies compliance with the compliance plan for each affected engine or affected NO_x emitting equipment to the Secretary by October 31 of each year, beginning in 2007. The report shall demonstrate and certify compliance with the applicable ozone season NO_x reduction set forth in subsection 90.3.