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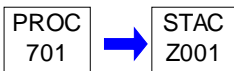
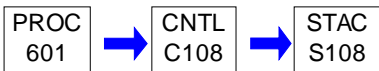
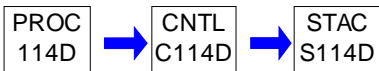
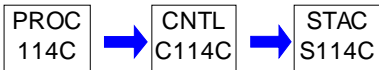
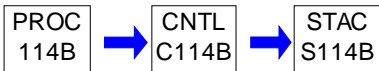
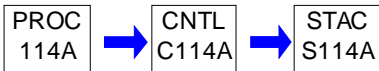
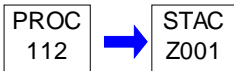
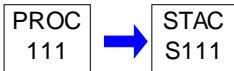
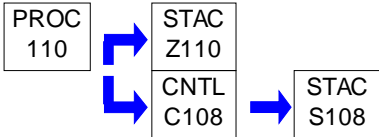
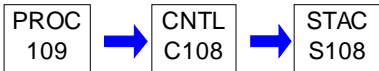
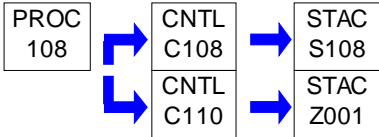
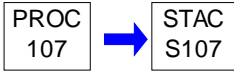
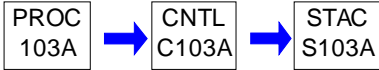
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
103A	REFRIGERANT COMPRESSOR	4.600 MCF/HR	NATURAL GAS
103B	REFRIGERANT COMPRESSOR	4.600 MCF/HR	NATURAL GAS
107	PROCESS HEATERS	351.000 MMBTU/HR	
		328.000 MCF/HR	NATURAL GAS
108	TRUCK AND RAILYARD LOADING		
109	STORAGE TANK		
110	GAS PROCESSING PLANT VENTING	N/A	
111	OLYMPIAN EMERGENCY GENERATOR	0.850 MMBTU/HR	
		0.790 MCF/HR	
112	ELECTRIC COMPRESSOR ENGINES		
114A	1480 BHP COMPRESSOR ENGINE	12.136 MCF/HR	NATURAL GAS
114B	1480 BHP COMPRESSOR ENGINE	12.136 MCF/HR	NATURAL GAS
114C	1480 BHP COMPRESSOR ENGINE	12.136 MCF/HR	NATURAL GAS
114D	1480 BHP COMPRESSOR ENGINE	12.136 MCF/HR	NATURAL GAS
601	VENTING/BLOWDOWN		
701	OTHER FUGITIVES		
801	PIGGING OPERATIONS		
C103A	NSCR - SOURCE 103A		
C103B	NSCR - SOURCE 103B		
C108	PLANT PROCESS FLARE	N/A	Natural Gas
		N/A	Refinery Gas
C110	TEMPORARY FLARE	N/A	Natural Gas
		N/A	Refinery Gas
C114A	NSCR - SOURCE 114A		
C114B	NSCR - SOURCE 114B		
C114C	NSCR - SOURCE 114C		
C114D	NSCR - SOURCE 114D		
S103A	COMPRESSOR STACK		
S103B	COMPRESSOR STACK		
S107	PROCESS HEATERS EXHAUST		
S108	FLARE STACK		
S111	STACK FROM OLYMPIAN EMERGENCY GENERATOR		
S114A	COMPRESSOR STACK		
S114B	COMPRESSOR STACK		
S114C	COMPRESSOR STACK		
S114D	COMPRESSOR STACK		
Z001	OTHER FUGITIVES		
Z110	GAS PROCESSING PLANT FUGITIVES		

**PERMIT MAPS**



## PERMIT MAPS





**PERMIT MAPS**

PROC  
801



CNTL  
C108



STAC  
S108

**SECTION B. General Title V Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

**#002 [25 Pa. Code § 121.7]****Prohibition of Air Pollution**

No person may permit air pollution as that term is defined in the act.

**#003 [25 Pa. Code § 127.512(c)(4)]****Property Rights**

This permit does not convey property rights of any sort, or any exclusive privileges.

**#004 [25 Pa. Code § 127.446(a) and (c)]****Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

**#005 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e) & 127.503]****Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

(c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

**#006 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]****Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by the Department.

**SECTION B. General Title V Requirements**

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

**#007 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]****Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
- (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

**#008 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]****Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

**#009 [25 Pa. Code § 127.512(c)(2)]****Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**#010 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]****Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or



**SECTION B. General Title V Requirements**

to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

**#011 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]****Reopening and Revising the Title V Permit for Cause**

(a) This Title V 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 a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

**#012 [25 Pa. Code § 127.543]****Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

**#013 [25 Pa. Code § 127.522(a)]****Operating Permit Application Review by the EPA**

The applicant may be required by the Department to provide a copy of the permit application, including the compliance plan, directly to the Administrator of the EPA. Copies of title V permit applications to EPA, pursuant to 25 PA Code §127.522(a), shall be submitted, if required, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

**#014 [25 Pa. Code § 127.541]****Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with

**SECTION B. General Title V Requirements**

25 Pa. Code § 127.541. Notifications to EPA, pursuant to 25 PA Code §127.522(a), if required, shall be submitted, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

**#015 [25 Pa. Code §§ 121.1 & 127.462]****Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications). Notifications to EPA, pursuant to 25 PA Code §127.462(c), if required, shall be submitted, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

**#016 [25 Pa. Code § 127.450]****Administrative Operating Permit Amendments**

(a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a). Copies of request for administrative permit amendment to EPA, pursuant to 25 PA Code §127.450(c)(1), if required, shall be submitted to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

(b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

**#017 [25 Pa. Code § 127.512(b)]****Severability Clause**

The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction, or US EPA to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

**#018 [25 Pa. Code §§ 127.704, 127.705 & 127.707]****Fee Payment**

(a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees).

(b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.

(c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.

(d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).

**SECTION B. General Title V Requirements**

(e) The permittee shall pay an annual operating permit administration fee according to the fee schedule established in 25 Pa. Code § 127.704(c) if the facility, identified in Subparagraph (iv) of the definition of the term "Title V facility" in 25 Pa. Code § 121.1, is subject to Title V after the EPA Administrator completes a rulemaking requiring regulation of those sources under Title V of the Clean Air Act.

(f) This permit condition does not apply to a Title V facility which qualifies for exemption from emission fees under 35 P.S. § 4006.3(f).

**#019 [25 Pa. Code §§ 127.14(b) & 127.449]****Authorization for De Minimis Emission Increases**

(a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or (2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:

- (1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.
- (2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

(b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

- (1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.
- (2) One ton of NO<sub>x</sub> from a single source during the term of the permit and 5 tons of NO<sub>x</sub> at the facility during the term of the permit.
- (3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.
- (4) Six-tenths of a ton of PM<sub>10</sub> from a single source during the term of the permit and 3.0 tons of PM<sub>10</sub> at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
- (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
- (4) Space heaters which heat by direct heat transfer.

**SECTION B. General Title V Requirements**

- (5) Laboratory equipment used exclusively for chemical or physical analysis.
- (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.
  - (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
  - (3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
  - (4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.
- (e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

**#020 [25 Pa. Code §§ 127.11a & 127.215]****Reactivation of Sources**

- (a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.
- (b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

**#021 [25 Pa. Code §§ 121.9 & 127.216]****Circumvention**

- (a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.
- (b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department,

**SECTION B. General Title V Requirements**

the device or technique may be used for control of malodors.

**#022 [25 Pa. Code §§ 127.402(d) & 127.513(1)]****Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager  
PA Department of Environmental Protection  
(At the address given on the permit transmittal letter,  
or otherwise notified)

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Office of Air Enforcement and Compliance Assistance (3AP20)  
United States Environmental Protection Agency  
Region 3  
1650 Arch Street  
Philadelphia, PA 19103-2029

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**#023 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]****Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

**#024 [25 Pa. Code §§ 127.511 & Chapter 135]****Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

**SECTION B. General Title V Requirements**

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

**#025 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]****Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #022(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

**#026 [25 Pa. Code § 127.513]****Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department and EPA in accordance with the submission requirements specified in condition #022 of this section.

**#027 [25 Pa. Code § 127.3]****Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)

**SECTION B. General Title V Requirements**

- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)
- (6) Section 127.462 (relating to minor operating permit amendments)
- (7) Subchapter H (relating to general plan approvals and operating permits)

**#028 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]****Risk Management**

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:

(1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:

- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.

(3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.

(c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

(d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:

(1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,

(2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.

(e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.

(f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:

- (1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.

**SECTION B. General Title V Requirements**

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Condition #26 of Section B of this Title V permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

**#029 [25 Pa. Code § 127.512(e)]****Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

**#030 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]****Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

- (1) The applicable requirements are included and are specifically identified in this permit.
- (2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

- (1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.
- (2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.
- (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.
- (4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

**#031 [25 Pa. Code §135.3]****Reporting**

(a) The permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

**#032 [25 Pa. Code §135.4]****Report Format**

Emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.





## SECTION C. Site Level Requirements

### I. RESTRICTIONS.

#### Emission Restriction(s).

##### # 001 [25 Pa. Code §123.1]

##### Prohibition of certain fugitive emissions

(a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:

(1) Construction or demolition of buildings or structures.

(2) Grading, paving and maintenance of roads and streets.

(3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.

(4) Clearing of land.

(5) Stockpiling of materials.

(6) Open burning operations.

(7) Not applicable

(8) Not applicable

(9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

(i) the emissions are of minor significance with respect to causing air pollution; and

(ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

(b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

(c) A person responsible for any source specified in subsections (a)(1) -- (7) or (9) shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

(1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.

(2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

(3) Paving and maintenance of roadways.

(4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

(d) Not applicable

**SECTION C. Site Level Requirements****# 002 [25 Pa. Code §123.2]****Fugitive particulate matter**

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

**# 003 [25 Pa. Code §123.31]****Limitations**

(a) Not applicable

(b) A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

(c) Not applicable

**# 004 [25 Pa. Code §123.41]****Limitations**

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

(1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.

(2) Equal to or greater than 60% at any time.

**# 005 [25 Pa. Code §123.42]****Exceptions**

The limitations of 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

(1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations.

(2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.

(3) When the emission results from sources specified in 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions).

(4) Not applicable

**# 006 [25 Pa. Code §129.14]****Open burning operations**

(a) [Not applicable]

(b) Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.

(2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.

(3) The emissions interfere with the reasonable enjoyment of life or property.

(4) The emissions cause damage to vegetation or property.

**SECTION C. Site Level Requirements**

(5) The emissions are or may be deleterious to human or animal health.

(c) Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:

(1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.

(2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

(3) A fire set for the prevention and control of disease or pests, when approved by the Department.

(4) - (5) [Not applicable]

(6) A fire set solely for recreational or ceremonial purposes.

(7) A fire set solely for cooking food.

(d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:

(1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) [Not applicable]

(3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:

(i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.

(ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

**II. TESTING REQUIREMENTS.**

**# 007 [25 Pa. Code §127.12b]**  
**Plan approval terms and conditions.**  
[PA 10-368D & E]

The Department reserves the right to require exhaust stack testing of any source(s) as necessary to verify emissions for purposes of determining malfunctions or compliance with any applicable requirements.

**III. MONITORING REQUIREMENTS.**

**# 008 [25 Pa. Code §123.43]**  
**Measuring techniques**

Visible emissions may be measured using either of the following:

**SECTION C. Site Level Requirements**

(1) A device approved by the Department and maintained to provide accurate opacity measurements.

(2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

**# 009 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall conduct weekly monitoring of the facility property, during daylight hours while the facility is in operation, to observe for the presence of unpermitted fugitive emissions and visible emissions being emitted into the outdoor atmosphere.

(b) All detected fugitive and visible emissions shall be reported to the facility manager and/or shift supervisor.

**IV. RECORDKEEPING REQUIREMENTS.****# 010 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall maintain a record of the monitoring conducted to determine the presence of fugitive and visible emissions.

(b) This recordkeeping shall contain a listing or notation of any and all sources of fugitive and visible emissions; the cause of the fugitive or visible emissions; duration of the emission; and the corrective action taken to abate the deviation and prevent future occurrences.

**# 011 [25 Pa. Code §129.100]****Compliance demonstration and recordkeeping requirements.**

Beginning with the compliance date specified in § 129.97(a), the owner or operator of an air contamination source claiming that the air contamination source is exempt from the applicable VOC emission rate threshold specified in § 129.99(c) and the requirements of § 129.97 based on the air contamination source's potential to emit shall maintain records that demonstrate to the Department or appropriate approved local air pollution control agency that the air contamination source is not subject to the specified emission rate threshold.

[25 Pa. Code § 129.100(f)]

[The RACT II applicability sent to the Department on September 7, 2018 (electronic e-mail) & the review memo for the 2019 renewal serve as records to demonstrate exemption from RACT II for several sources.]

**V. REPORTING REQUIREMENTS.****# 012 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368D & E]

The owner or operator shall notify the Department by telephone within twenty-four (24) hours of the discovery of any malfunction at this facility, or any malfunction of pollution control equipment associated with this facility, which results in, or may possibly be resulting in, the emission of air contaminants in excess of any applicable limitation specified herein. Following the telephone notification, a written notice shall also be submitted to DEP as specified below.

(i) If the owner or operator is unable to provide notification by telephone to the appropriate Regional Office within twenty-four (24) hours of discovery of a malfunction due to a weekend or holiday, the notification shall be made to the Department by no later than 4 p.m. on the first business day for the Department following the weekend or holiday.

(ii) Any malfunction that poses an imminent danger to the public health, safety, welfare, or environment shall be reported by telephone to the Department and the County Emergency Management Agency immediately after the discovery of an incident. The owner or operator shall submit a written report of instances of such malfunctions to the Department within three (3) business days of the telephone report.

**SECTION C. Site Level Requirements**

(iii) Unless otherwise required by this Plan Approval, other malfunctions shall be reported to the Department, in writing, within five (5) business days of malfunction discovery.

**# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The annual compliance certification report, required under Section B. General Title V Requirements, Condition #026, shall be submitted to the Department by March 1 of each year. The annual compliance certification shall cover the period of February 1 through January 31 of each year.

[The submission deadline under Section C, VIII. Compliance Certification is in agreement with the March 1 deadline of this condition.]

**# 014 [25 Pa. Code §135.21]****Emission statements**

(a) Except as provided in subsection (d), this section applies to stationary sources or facilities:

(1) Located in an area designated by the Clean Air Act as a marginal, moderate, serious, severe or extreme ozone nonattainment area and which emit oxides of nitrogen or VOC.

(2) Not located in an area described in subparagraph (1) and included in the Northeast Ozone Transport Region which emit or have the potential to emit 100 tons or more oxides of nitrogen or 50 tons or more of VOC per year.

(b) The owner or operator of each stationary source emitting oxides of nitrogen or VOC's shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of oxides of nitrogen and VOCs from that source for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

(c) Annual emission statements are due by March 1 for the preceding calendar year beginning with March 1, 1993, for calendar year 1992 and shall provide data consistent with requirements and guidance developed by the EPA. The guidance document is available from: United States Environmental Protection Agency, 401 M. Street, S.W., Washington, D.C. 20460. The Department may require more frequent submittals if the Department determines that one or more of the following applies:

(1) A more frequent submission is required by the EPA.

(2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the act.

(d) Subsection (a) does not apply to a class or category of stationary sources which emits less than 25 tons per year of VOC's or oxides of nitrogen, if the Department in its submissions to the Administrator of the EPA under section 182(a)(1) or (3)(B)(ii) of the Clean Air Act (42 U.S.C.A. 7511a(a)(1) or (3)(B)(ii)) provides an inventory of emissions from the class or category of sources based on the use of the emission factors established by the Administrator or other methods acceptable to the Administrator. The Department will publish in the Pennsylvania Bulletin a notice of the lists of classes or categories of sources which are exempt from the emission statement requirement under this subsection.

**VI. WORK PRACTICE REQUIREMENTS.****# 015 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A, B, D, & E]

In accordance with 25 Pa. Code Section 123.1(c), the owner or operator of a facility, shall take all reasonable actions to prevent particulate matter from becoming airborne, and shall at a minimum comply with the following requirements:

a. The owner or operator of a facility shall not allow paved and unpaved internal roadways to generate excessive dust

**SECTION C. Site Level Requirements**

emissions or the tracking of dirt/soils onto public roads.

b. The owner or operator of a facility shall prevent excessive emissions and carryout. Methods which may be used to prevent excessive emissions or carryout include, but are not limited to, sweeping and/or use of a tire washing system.

c. The owner or operator of a facility shall apply water or other chemical dust suppressants to the unpaved road surface to reduce fugitive dusts, if necessary based on daily site conditions. Water, if used, shall not be applied if the result would be a potentially unsafe condition, such as ice formation. In no event the owner or operator of the facility shall use waste oil as a dust suppressant.

d. The owner or operator shall establish an appropriate speed limit, within 120 days of the issuance of this General Permit and post on all unpaved roadways within the facility. The owner or operator of the facility shall submit the proposed speed limit to the Department, in writing, for approval. The owner or operator of the facility shall develop the speed limit signs consistent with the requirements of Pennsylvania Department of Transportation (PennDOT) (overall dimension 20 inches x 24

inches, 'SPEED LIMIT' in 4-inch letters and 10-inch numerals).

e. If necessary to prevent earthen carryout, the owner or operator of the facility shall wash wheels and chassis of the vehicles upon leaving the facility, to prevent earthen carryout onto roadways.

f. The owner or operator shall apply water or other chemical dust suppressants, as needed on the access roadways if unpaved at the unloading areas to reduce fugitive dusts.

g. The owner or operator shall remove promptly any earth or other material that is deposited by trucking or other means on public roadways.

i. A written manual documenting the activities utilized at the facility to control fugitive particulate matter emissions shall be maintained on-site.

h. The company shall keep sufficient records to demonstrate that the activities utilized at the facility to control fugitive particulate matter emissions are being implemented.

i. The records documenting implementation of the activities utilized at the facility to control fugitive particulate matter emissions shall be maintained at the facility for 5 years and shall be made available to DEP upon request.

**VII. ADDITIONAL REQUIREMENTS.**

**# 016 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

[PA 10-368A, B, D, & E]

a. If required by Section 112(r) of the Clean Air Act, the owner or operator of the facility shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

b. The owner or operator of the facility shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The owner or operator of the facility shall submit the RMP to the Environmental

Protection Agency according to the following schedule and requirements:

i. The owner or operator of the facility shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:

A. Three years after the date on which a regulated substance is first listed under § 68.130; or,

**SECTION C. Site Level Requirements**

- B. The date on which a regulated substance is first present above a threshold quantity in a process.
- ii. The owner or operator of the facility shall submit any additional relevant information requested by the Department or the Environmental Protection Agency concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
- iii. The owner or operator of the facility shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- c. As used in this condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Below are the applicable limits and standards of the Consent Decree, Case: 3:18-cv-02526-JGC, entered on January 8, 2019.]

**V. INJUNCTIVE RELIEF****A. Subpart OOOO Applicability to Process Units**

19. [See Source Group CONSENT DECREE - COND 19 in Section E of this permit.]

**C. Pilot-Operated Modulating Pressure Relief Valves ("PORVs")**

59 - 65. [See Source Group CONSENT DECREE - COND 59 to 65 in Section E of this permit. Applies to Source 110.]

**D. Subpart NNN**

67. [See Source Group CONSENT DECREE - COND 67 in Section E of this permit. Applies to Source 110.]

**F. Railroad or any Other Enclosed Combustion Devices (including Portable)**

74. [Not Applicable to Bluestone Facility]

**G. Hose Connections to Railcar/Truck Loading Operations**

79 - 81. [See Source Group CONSENT DECREE - COND 79 to 81 in Section E of this permit. Applies to Source 108]

**H. Natural Gasoline Storage Vessels**

83 - 86. [See Source Group CONSENT DECREE - COND 83 to 86 in Section E of this permit. Applies to Source 109.]

**I. Large Hot Oil Heaters Subject to NSPS Db**

87 - 89. [See Source Group CONSENT DECREE - COND 87 to 89 in Section E of this permit. Applies to one (1) HMO heater (> 100 mmbtu/hr) included in Source 107.]

**J. Small Hot Oil Heaters Subject to NSPS Dc**

94. [See Source Group CONSENT DECREE - COND 94 in Section E of this permit. Applies to five (5) HMO heaters (> 10 mmbtu/hr, < 100 mmbtu/hr) included in Source 107.]

**SECTION C. Site Level Requirements**

## VI. Incorporation of Consent Decree Requirements into Federally Enforceable Permits

## 102. Permits to Ensure Survival of Consent Decree Limits and Standards after Termination of Consent Decree.

a. Prior to termination of this Consent Decree, "Markwest Liberty Bluestone, LLC" shall submit complete applications, amendments, and/or supplements for all Covered Facilities to incorporate as "applicable requirements" the limits and standards consistent with the compliance parameters specified in the referenced Paragraph 102(b) into a non-Title V, federally enforceable permits that will survive termination of this Consent Decree to applicable permitting authorities.

b. The limits and standards imposed by the following sub-Paragraphs of this Consent Decree and its Appendices shall be incorporated into non-Title V, federally enforceable permits prior to Termination:

- i. Subpart OOOO as it applies to gas processing plants (Paragraph 19 of this Consent Decree);
- ii. Pilot-Operated Modulating Pressure Relief Valves (Paragraphs 59-61 of this Consent Decree);
- iii. Subpart NNN as it applies to process units that are affected facilities (Paragraph 67 of this Consent Decree);
- iv. Enclosed Combustion Devices (Paragraph 74 of this Consent Decree);
- v. Hose Connections to Railcar/Truck Loading Operations (Paragraphs 79-80 of this Consent Decree);
- vi. Natural Gasoline Storage Vessels (Paragraphs 83-84 of this Consent Decree);
- vii. Subpart Db as it applies to affected Large Hot Oil Heaters (Paragraph 87 of this Consent Decree); and
- viii. Subpart Dc as it applies to affected Small Hot Oil Heaters (Paragraph 94 of this Consent Decree).

103. Modifications to Title V Operating Permits. Prior to termination of this Consent Decree, Defendants shall, for any Covered Facility with a Title V Operating Permit, submit complete applications to applicable permitting authorities to modify, amend or revise such Title V permit to incorporate the applicable limits and standards identified in the preceding Paragraph into the Title V Permit. "MarkWest Liberty Bluestone, LLC", "USEPA", and "PADEP" agree that the incorporation of these emission limits and standards into the Title V Permits shall be done in accordance with applicable state or local Title V rules. "MarkWest Liberty Bluestone, LLC", "USEPA", and "PADEP" agree that the incorporation may be by "amendment" under 40 C.F.R. § 70.7(d) and analogous state Title V rules, were allowed by state law.

[The requirements above are from a Consent Decree (Case: 3:18-cv-02526, Filed November 1, 2018) filed in the US District Court of the Northern District of Ohio. The Plaintiffs were the US, Oklahoma, West Virginia, and PADEP. The Defendants were MPLX, LP and several Markwest corporate entities, including Markwest Liberty Bluestone, LLC. Per Paragraph 101 of the Decree, these requirements were to be added to this Title V Operating Permit and remain applicable, even after the termination of the Consent Decree.]

Only the limits and standards per Paragraph 102 of the Consent Decree, the associated recordkeeping requirements, and the paragraphs specific for the Bluestone Facility are incorporated into this permit. EPA Reference Test Method 21 - DETERMINATION OF VOLATILE ORGANIC COMPOUND LEAKS is included in this permit by reference.

Because of the Consent Decree, requirements of § 60 Subparts Db, Dc, and NNN are added to this permit and are contained in Section E, Source Groups § 60 SUBPART DB, § 60 SUBPART DC, and § 60 SUBPART NNN, respectively.]

**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Below are select terms as defined in Section III. of the Consent Decree, Case: 3:18-cv-02526-JGC. These terms are used in paragraphs of the Consent Decree incorporated into this permit.]

COVERED PROCESS UNIT shall mean any process unit that is, or under the terms of this Consent Decree becomes, subject to the equipment leak provisions of 40 C.F.R. Part 60, Subparts KKK (and by reference Subpart VV) or Subpart



**SECTION C. Site Level Requirements**

OOOO (and by reference Subpart VVa).

DISTILLATION UNIT shall mean a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.

DOR shall mean Delay of Repair.

EFFECTIVE DATE shall have the meaning give in Section XVII (Effective Date) (i.e., of the Consent Decree). [The Consent Decree was entered and became effective on January 8, 2019.]

ISOLATION VALVE shall mean a valve that temporarily (or permanently) isolates a part or piece of equipment, correspondingly removing that part or piece from VOC services.

LDAR or LEAK DETECTION and REPAIR shall mean the leak detection and repair activities required by any applicable "equipment leak" regulations set forth in 40 C.F.R. Part 60, Subparts KKK, OOOO, and VVa, as well as any applicable state or local equipment leak requirements that require the use of Method 21 or OGI, as applicable to the alternative work practice as specified in 40 C.F.R. § 60.18(g), to monitor for equipment leaks and also require the repair of leaks discovered through such monitoring. LDAR REGULATIONS shall collectively mean the federal, state and local law, regulations, permit and requirements referenced in this subparagraph.

MAINTENANCE SHUTDOWN shall mean a shutdown of a Covered Process Unit that either is done for the purpose of scheduled maintenance and that lasts longer than 14 calendar days.

METHOD 21 shall mean the test method found at 40 C.F.R. Part 60, Appendix A, Method 21. To the extent that the Covered Equipment is subject to regulations that modify Method 21, those modifications shall be applicable.

NATURAL GASOLINE STORAGE VESSEL shall mean a storage vessel that stores natural gasoline product.

OPTICAL GAS IMAGING INSTRUMENT or OGI shall mean an instrument that images a gas cloud, not visible to the naked eye, and can absorb/emit radiant energy at the waveband of the infrared camera. The waveband must contain at least the range of 3.3 to 3.4 micrometers.

PILOT-OPERATED MODULATING PRESSURE RELIEF VALVE or PORV shall mean a pilot valve (or control pilot) used to control or limit the pressure in a system or which can build up for a process upset, instrument or equipment failure, or fire.

PROCESS UNIT means equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products as defined in 40 C.F.R. § 60.5430. A Process Unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

REPAIR VERIFICATION MONITORING shall mean the utilization of monitoring (or other method) to be completed by no later than the next calendar Day after each attempt at repair of a leaking piece of equipment in order to determine whether the leak has been eliminated or is below the applicable leak definition in this LDAR Program.

**# 019 [25 Pa. Code §129.96]****Applicability**

(b) The NOx requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a NOx emitting facility and the VOC requirements of this section and § § 129.97—129.100 apply Statewide to the owner and operator of a VOC emitting facility when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NOx emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in § § 129.51—129.52e, 129.54—129.69, 129.71—129.75, 129.77, 129.101—129.107 and 129.301—129.310.

[MarkWest Bluestone was previously Synthetic Minor. Now, MarkWest Bluestone is a major VOC source.]

[Source 109 is subject to § 129.57 and therefore exempt from RACT II.]

**SECTION C. Site Level Requirements**

(c) This section and § § 129.97—129.100 do not apply to the owner and operator of a NO<sub>x</sub> air contamination source located at a major NO<sub>x</sub> emitting facility that has the potential to emit less than 1 TPY of NO<sub>x</sub> or a VOC air contamination source located at a major VOC emitting facility that has the potential to emit less than 1 TPY of VOC.

[The following sources have individual VOC PTEs < 1 TPY:

- Sources 111, 701, & 801.

- Fugitive emissions from pump seals & compressors included in Source 110.

- Seven (7) heaters of Source 107 (H-5801 Bluestone I Regen Heater; 2-H-101 Bluestone II Regen Heater; 2-H-102 Deethanization I Regen Heater; 2-H-802 Depropanizer I HMO Heater; 3-H-741 Bluestone III Regen Heater; 3-H-781 Bluestone III HMO Heater; and 7-H-1775 Deethanizer II Regen Heater). The remaining five (5) heaters of Source 107 are subject to presumptive RACT II requirements.]

[§ 129.96(a) & (d) do not apply.]

**# 020 [25 Pa. Code §129.97]****Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

(a) The owner and operator of a source listed in one or more of subsections (b)—(h) located at a major NO<sub>x</sub> emitting facility or major VOC emitting facility subject to § 129.96 (relating to applicability) shall comply with the applicable presumptive RACT requirement or RACT emission limitation, or both, beginning with the specified compliance date as follows, unless an alternative compliance schedule is submitted and approved under subsections (k)—(m) or § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule):

(1) [Not Applicable]

(2) January 1, 2017, or 1 year after the date the source meets the definition of a major NO<sub>x</sub> emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).

[Sources subject to RACT II presumptive requirements are the following: Sources 103A, 103B, 114A, 114B, 114C, 114D, 107, 108, & 601; and Control Devices C108 & C110.]

(b) - (h) [Omitted. Applicable provisions are incorporated &/or cited in Sections D & E of this permit.]

**# 021 [25 Pa. Code §129.99]****Alternative RACT proposal and petition for alternative compliance schedule.**

(a) The owner or operator of an air contamination source subject to § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) located at a major NO<sub>x</sub> emitting facility or major VOC emitting facility subject to § 129.96 (relating to applicability) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation of § 129.97 may propose an alternative RACT requirement or RACT emission limitation in accordance with subsection (d).

(b) [Not Applicable]

(c) The owner or operator of a VOC air contamination source with a potential emission rate equal to or greater than 2.7 tons of VOC per year that is not subject to § 129.97 located at a major VOC emitting facility subject to § 129.96 shall propose a VOC RACT requirement or RACT emission limitation in accordance with subsection (d).

[Sources subject to RACT II alternative requirements are the following: four (4) fugitive emissions sources, namely connectors, flanges, PSV (pressure safety valves), & valves. These fugitive emissions sources are included in Source 110.]

(d) - (k) [Omitted. Refer to 25 Pa. Code § 129.99 in [www.pacodeandbulletin.gov](http://www.pacodeandbulletin.gov).]

**VIII. COMPLIANCE CERTIFICATION.**

The permittee shall submit within thirty days of 01/31/2021 a certificate of compliance with all permit terms and conditions set forth in this Title V permit as required under condition #026 of section B of this permit, and annually thereafter.

**IX. COMPLIANCE SCHEDULE.**



**SECTION C. Site Level Requirements**

No compliance milestones exist.

**\*\*\* Permit Shield In Effect \*\*\***

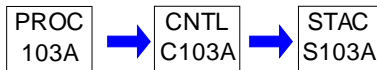
**SECTION D. Source Level Requirements**

Source ID: 103A

Source Name: REFRIGERANT COMPRESSOR

Source Capacity/Throughput: 4.600 MCF/HR NATURAL GAS

Conditions for this source occur in the following groups: SOURCE TEST SUBMITTALS  
 § 127.12B - REFRIGERANT COMPRESSORS  
 § 60 SUBPART JJJJ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

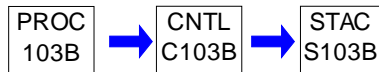
**SECTION D. Source Level Requirements**

Source ID: 103B

Source Name: REFRIGERANT COMPRESSOR

Source Capacity/Throughput: 4.600 MCF/HR NATURAL GAS

Conditions for this source occur in the following groups: SOURCE TEST SUBMITTALS  
 § 127.12B - REFRIGERANT COMPRESSORS  
 § 60 SUBPART JJJJ

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

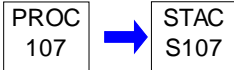
**SECTION D. Source Level Requirements**

Source ID: 107

Source Name: PROCESS HEATERS

Source Capacity/Throughput: 351.000 MMBTU/HR  
328.000 MCF/HR NATURAL GAS

Conditions for this source occur in the following groups: CONSENT DECREE - COND 19  
CONSENT DECREE - COND 87  
CONSENT DECREE - COND 94  
SOURCE TEST SUBMITTALS  
§ 127.12B - LDAR  
§ 60 SUBPART DB  
§ 60 SUBPART DC  
§ 60 SUBPART OOOO  
§ 60 SUBPART VVA

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.

**# 002 [25 Pa. Code §123.22]****Combustion units**

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from a combustion unit in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

**# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368E]

- (a) Emissions from 2-H-802 Depropanizer I HMO Heater [42.4 MMBtu/hr] shall not exceed any of the following:
- (i) NO<sub>x</sub>: 0.05 lb/MMBtu; 9.3 tpy, calculated as a 12-month rolling total.
  - (ii) CO: 0.05 lb/MMBtu; 9.3 tpy, calculated as a 12-month rolling total.
- (b) Emissions from 6-H-851 Fractionator HMO Heater [119.2 MMBtu/hr] shall not exceed any of the following:
- (i) NO<sub>x</sub>: 0.035 lb/MMBtu; 18.27 tpy, calculated as a 12-month rolling total.
  - (ii) CO: 0.051 lb/MMBtu; 26.76 tpy, calculated as a 12-month rolling total.
- (c) Emissions from 6-H-852 Fractionator HMO Heater [64.5 MMBtu/hr] shall not exceed any of the following:
- (i) NO<sub>x</sub>: 0.04 lb/MMBtu; 11.3 tpy, calculated as a 12-month rolling total.
  - (ii) CO: 0.078 lb/MMBtu; 22.14 tpy, calculated as a 12-month rolling total.
- (d) Emissions from 7-H-1768 Deethanizer II HMO Heater [60.7 MMBtu/hr] shall not exceed any of the following:
- (i) NO<sub>x</sub>: 0.04 lb/MMBtu; 10.64 tpy, calculated as a 12-month rolling total.
  - (ii) CO: 0.04 lb/MMBtu; 10.64 tpy, calculated as a 12-month rolling total.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368E. Starting with the initial Title V operating permit, VOC is removed from the list of emissions that must be tested.]

(1) Within 90 days after achieving the normal rated capacity at which the affected source will be operated, but no later than 180 days from startup of the source(s), stack test(s) for NO<sub>x</sub> and CO shall be performed on 2-H-802 Depropanizer I HMO Heater [42.4 MMBtu/hr], 6-H-851 Fractionator HMO Heater [119.2 MMBtu/hr], 6-H-852 Fractionator HMO Heater [64.5 MMBtu/hr], and 7-H-1768 Deethanizer II HMO Heater [60.7 MMBtu/hr], in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test(s) shall be performed while the aforementioned source(s) are operating at maximum normal operating conditions.

(2) - (9) [Omitted. For the latest instructions on source test submittals (Source Testing Section, August 17, 2018), follow the requirements of Source Group SOURCE TEST SUBMITTALS in Section E of this permit.]

(10) The permittee shall ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

(11) Actions Related to Noncompliance Demonstrated by a Stack Test:

(a) If the results of a stack test, performed as required by this approval, exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. Within 30 days of the Permittee receiving the stack test results, a written description of the corrective actions shall be submitted to the Department. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. The Department shall notify the Permittee within 30 days, if the corrective actions taken are deficient. Within 30 days of receipt of the notice of deficiency, the Permittee shall submit a description of additional corrective actions to the Department. The Department reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) If the results of the required stack test exceed any limit defined in this plan approval, the test was not performed in accordance with the stack test protocol or the source and/or air cleaning device was not operated in accordance with the plan approval, then another stack test shall be performed to determine compliance. Within 120 days of the Permittee receiving the original stack test results, a retest shall be performed. The Department may extend the retesting deadline if the Permittee demonstrates, to the Department's satisfaction, that retesting within 120 days is not practicable. Failure of the second test to demonstrate compliance with the limits in the plan approval, not performing the test in accordance with the stack test protocol or not operating the source and/or air cleaning device in accordance with the plan approval may be grounds for immediate revocation of the plan approval to operate the affected source.

(12) Once every five (5) years and not more than 60 months after the previous stack test, the permittee shall perform stack test(s) for NO<sub>x</sub> and CO on 2-H-802 Depropanizer I HMO Heater [42.4 MMBtu/hr], 6-H-851 Fractionator HMO Heater [119.2 MMBtu/hr], 6-H-852 Fractionator HMO Heater [64.5 MMBtu/hr], and 7-H-1768 Deethanizer II HMO Heater [60.7 MMBtu/hr] in accordance with the provisions of Condition #004 for this source. The stack test(s) shall be performed while the aforementioned source(s) are operating at the maximum or normal rated capacity as stated on the application for PA 10-368E.

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368E]

(a) The permittee shall maintain a record of all preventative maintenance inspections of this source. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, any actions taken to correct the problems or defects, and any routine maintenance performed.

(b) All required records shall be maintained for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368E]

(a) The permittee shall install, maintain, and operate this source in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**VII. ADDITIONAL REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For RACT II purposes:

(a) Applicability of RACT II to the heaters of Source 107 are as follows:

(1) Four (4) heaters are subject to § 129.97(c)(2) – i.e., PTE VOC < 2.7 TPY (but > 1 TPY). These are H-5602 Bluestone I Deethanization Heater; 2-H-801 Bluestone II HMO Heater; 6-H-851 Fractionation HMO Heater; and 6-H-852 Fractionation HMO Heater.

(2) One (1) heater is subject to § 129.97(d) – i.e. PTE VOC > 2.7 TPY. This is 7-H-1768 Deethanizer II HMO Heater.

(3) Seven (7) heaters are exempt from RACT II pursuant to § 129.96(c) – i.e., PTE VOC < 1 TPY. These are H-5801 Bluestone I Regen Heater; 2-H-101 Bluestone II Regen Heater; 2-H-102 Deethanization I Regen Heater; 2-H-802 Depropanizer I HMO Heater; 3-H-741 Bluestone III Regen Heater; 3-H-781 Bluestone III HMO Heater; and 7-H-1775 Deethanizer II Regen Heater.

(b) Compliance with a work practice requirement established through PA 10-368E assures compliance of the four heaters in paragraph (a)(1) with § 129.97(c) and the one heater in paragraph (a)(2) with § 129.97(d).

(c) Compliance with recordkeeping requirements established through PA 10-368E assures compliance with § 129.100(d) & (i).

(d) Because MarkWest Bluestone is not a major NO<sub>x</sub> source, presumptive RACT II NO<sub>x</sub> limits and requirements do not apply. The NO<sub>x</sub> limit pursuant to § 129.97(g)(1)(i) does not apply to 7-H-1768 Deethanizer II HMO Heater.

**\*\*\* Permit Shield in Effect. \*\*\***



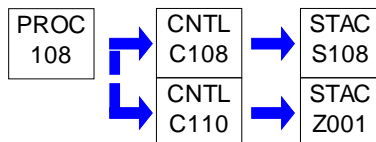
**SECTION D. Source Level Requirements**

Source ID: 108

Source Name: TRUCK AND RAILYARD LOADING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: CONSENT DECREE - COND 19  
 CONSENT DECREE - COND 79 TO 81  
 § 127.12B - LDAR  
 § 60 SUBPART OOOO  
 § 60 SUBPART WA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A &amp; D]

(a) The permittee shall maintain a record of all preventative maintenance inspections of this source. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, any actions taken to correct the problems or defects, and any routine maintenance performed.

(b) All required records shall be maintained for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A &amp; D]

(a) The permittee shall install, maintain, and operate this source in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For RACT II purposes:

(a) Applicability of RACT II to Source 108 are as follows:

- (1) 'Emissions not captured' and 'emissions from hose disconnection' are subject to § 129.97(c)(2) – i.e., PTE VOC < 2.7 TPY.
- (2) 'Emissions captured & directed to flare' is subject to § 129.97(c)(6) – i.e., an incinerator, thermal oxidizer or catalytic oxidizer used primarily for air pollution control.

(b) For emissions under paragraph (a)(1):

- (1) Compliance with a work practice requirement established through PA 10-368A & D assures compliance with § 129.97(c).
- (2) Compliance with recordkeeping requirements established through PA 10-368A & D assures compliance with § 129.100(d) & (i).

(c) For emissions under paragraph (a)(2), see C108 in Section D of this permit for applicable RACT II requirements.

**\*\*\* Permit Shield in Effect. \*\*\***

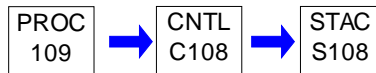
**SECTION D. Source Level Requirements**

Source ID: 109

Source Name: STORAGE TANK

Source Capacity/Throughput:

Conditions for this source occur in the following groups: CONSENT DECREE - COND 19  
 CONSENT DECREE - COND 83 TO 86  
 § 127.12B - LDAR  
 § 60 SUBPART OOOO  
 § 60 SUBPART WA

**I. RESTRICTIONS.****Control Device Efficiency Restriction(s).**

**# 001 [25 Pa. Code §127.12b]**  
**Plan approval terms and conditions.**

[PA 10-368E]

In accordance with 25 Pa. Code §§ 127.1 and 127.12(a)(5), the owner or operator of condensate tank or other storage vessel shall install and operate VOC control equipment that has a control efficiency of at least 95% on a storage vessel that has actual uncontrolled VOC emissions of greater than or equal to two tons per year. The owner or operator may use any of the following or any other method approved by the Department for calculating VOC emissions from condensate tank or other storage vessel.

- i. Vasquez-Beggs Equation (VBE)
- ii. Environmental Consultants and Research, Inc. (EC/R) Equation
- iii. An equation of state (EOS) calculation program such as E&P Tank®
- iv. Determination of the gas oil ratio (GOR) and throughput of the hydrocarbon liquids
- v. Process simulators (HYSIM®, HYSYS®, WINSIM®, PROSIM®, etc.)
- vi. Direct measurement of emissions

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

**# 002 [25 Pa. Code §127.12b]**  
**Plan approval terms and conditions.**

[PA 10-368E]

(a) The permittee shall maintain a record of all preventative maintenance inspections of this source. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, and any routine maintenance performed.

(b) All required records shall be maintained for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368E]

The permittee shall install, maintain, and operate this source in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**# 004 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

The provisions of this section shall apply to above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons which contain volatile organic compounds with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions. Storage tanks covered under this section shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than .7 psig (4.8 kilopascals) of pressure or .3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department. Section 129.56(g) (relating to storage tanks greater than 40,000 gallons capacity containing volatile organic compounds) applies to this section. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer shall be exempt from the requirements of this section.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

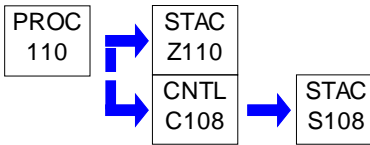
Source ID: 110

Source Name: GAS PROCESSING PLANT VENTING

Source Capacity/Throughput:

N/A

Conditions for this source occur in the following groups: CONSENT DECREE - COND 19  
 CONSENT DECREE - COND 59 TO 65  
 CONSENT DECREE - COND 67  
 § 127.12B - LDAR  
 § 60 SUBPART NNN  
 § 60 SUBPART OOOO  
 § 60 SUBPART VVA

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A &amp; D]

(a) The permittee shall maintain a record of all preventative maintenance inspections of this source. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, any actions taken to correct the problems or defects, and any routine maintenance performed.

(b) The permittee shall maintain monthly records of the hours of operation of this source.

(c) The permittee shall maintain monthly records of the amount of natural gas processed.

(d) All required records shall be maintained for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

All records required under §§ 60.5421 & 60.5420(c) shall be retained by the owner or operator for 5 years & made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

**SECTION D. Source Level Requirements**

[Authority for this condition is also derived from 25 Pa. Code § 129.100(i). This condition applies to the four fugitive emissions sources identified under VII. Additional Requirements of this source. For the four fugitive emissions sources identified, this condition streamlines out the 2-year recordkeeping requirement under § 60.5421(b)(2).]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.****# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & D]

(a) The permittee shall install, maintain, and operate this source in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(b) The permittee shall install a device to measure the amount of natural gas processed during a calendar month.

**VII. ADDITIONAL REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For RACT II purposes:

(a) Fugitive emissions sources included in Source 110 that are subject to RACT II Case-by-Case (§ 129.99) are the following: connectors, flanges, PSV (pressure safety valves), & valves.

(b) Proposed under the authority of § 129.99, RACT VOC requirement for fugitive emissions sources identified in paragraph (a) is § 40 CFR 60 Subpart OOOO.

[Applicable provisions of § 60 Subpart OOOO are incorporated under Source Group § 60 SUBPART OOOO in Section E of this permit. Note that § 60 Subpart OOOO, which is a requirement of PA 10-368D & GP5 10-368B, applies to all fugitive emission sources of Source 110 regardless of RACT II applicability.]

(c) Compliance with §§ 60.5421 & 60.5420(c), which are recordkeeping requirements of § 60 Subpart OOOO, assures compliance with recordkeeping requirement pursuant to § 129.100(d).

**# 005 [25 Pa. Code §129.99]****Alternative RACT proposal and petition for alternative compliance schedule.**

The emission limit and requirements specified in the plan approval or operating permit issued by the Department or appropriate approved local air pollution control agency under subsection (f) supersede the emission limit and requirements in the existing plan approval or operating permit issued to the owner or operator of the source prior to April 23, 2016, on the date specified in the plan approval or operating permit issued by the Department or appropriate approved local air pollution control agency under subsection (f), except to the extent the existing plan approval or operating permit contains more stringent requirements.

[The 25 Pa. Code § 129.99(g) is included as a condition in RACT 10-000-368 issued on November 18, 2019.]

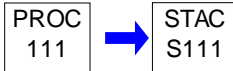
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 111

Source Name: OLYMPIAN EMERGENCY GENERATOR

Source Capacity/Throughput: 0.850 MMBTU/HR  
0.790 MCF/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

(a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.

(b) Not applicable

(c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:

(1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:

(i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

(ii) - (iii) Not applicable

(2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) Not applicable

**# 002 [25 Pa. Code §123.21]****General**

(a) Not applicable

(b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368D]

The permittee shall maintain the emission of NO<sub>x</sub> not greater than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season, and 6.6 tons per year on a 12-month rolling basis for the total of all of the exempted engines at the facility.

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

**# 004 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

[PA 10-368D]

The permittee shall maintain a record of NOx emission per hour, per day and, per year based on 12-months rolling total to demonstrate that the source is in compliance with the NOx restrictions. Present month's NOx emission record shall be added with previous 11 months records to get 12 months rolling total.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]**

**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

**Am I subject to this subpart?**

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) -(3): Not applicable.

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

(i) - (iii): Not applicable.

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

(5) - (6): Not applicable.

(b) - (e): Not applicable.

(f) Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]**

**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

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

(a) - (d): Not applicable.



**SECTION D. Source Level Requirements**

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

(f) - (h): Not applicable.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]**  
**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**  
**How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?**

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in § 60.4233 over the entire life of the engine.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4236]**  
**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**  
**What is the deadline for importing or installing stationary SI ICE produced in the previous model year?**

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in § 60.4233.

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

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

(d) In addition to the requirements specified in §§ 60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.

(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4237]**  
**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**  
**What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?**

(a) -(b): Not applicable.

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

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]**  
**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**  
**What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum

**SECTION D. Source Level Requirements**

engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

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

(2) [Not Applicable]

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

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

(2) [Not Applicable]

(c) [Not Applicable]

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) [The 'no time limit' condition is streamlined out by Condition #003 for this source.]

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

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

(ii) - (iii) [Vacated]

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) [Not Applicable]

**SECTION D. Source Level Requirements**

(ii) [Reserved]

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

(f) - (h) [Not Applicable]

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37974, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]**

**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

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

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

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

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

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

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

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(c) - (d): Not applicable.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.

(1) The report must contain the following information:

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

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

**SECTION D. Source Level Requirements**

(iii) Engine site rating and model year.

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

(v) - (vi) [Omitted. § 60.4243(d)(2)(ii) & (iii) cited in these provisions are vacated.]

(vii) Hours spent for operation for the purposes specified in § 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

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

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 78 FR 6697, Jan. 30, 2013]

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4246]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What parts of the General Provisions apply to me?**

Table 3 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4248]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105, 40 CFR 1054.107, and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first. You may request in your application for certification that we approve a shorter certified emissions life for an engine family. We may approve a shorter certified emissions life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter certified emissions life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The certified emissions life value may not be shorter than any of the following:

(i) 1,000 hours of operation.

(ii) Your recommended overhaul interval.

(iii) Your mechanical warranty for the engine.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of

**SECTION D. Source Level Requirements**

conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

- (1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.
- (2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.
- (3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and carbon dioxide (CO<sub>2</sub>).

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4243(d), then it is not considered to be an emergency stationary ICE under this subpart.

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.
- (2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4243(d).
- (3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4243(d)(2)(ii) or (iii) and § 60.4243(d)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

**SECTION D. Source Level Requirements**

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining or natural gas production.

Manufacturer has the meaning given in section 216(1) of the Clean Air Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

Model year means the calendar year in which an engine is manufactured (see "date of manufacture"), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see "date of manufacture"), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see "date of manufacture").

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Pipeline-quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to June 12, 2006, with passive emission control technology for NO<sub>x</sub> (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to either: a gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines

**SECTION D. Source Level Requirements**

in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Stationary internal combustion engine test cell/stand means an engine test cell/stand, as defined in 40 CFR part 63, subpart P, that tests stationary ICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Subpart means 40 CFR part 60, subpart J.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

Volatile organic compounds means volatile organic compounds as defined in 40 CFR 51.100(s).

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in § 60.4231(d) or (e), as applicable.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 76 FR 37974, June 28, 2011; 78 FR 6698, Jan. 30, 2013]

**\*\*\* Permit Shield in Effect. \*\*\***

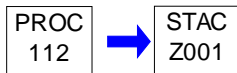
**SECTION D. Source Level Requirements**

Source ID: 112

Source Name: ELECTRIC COMPRESSOR ENGINES

Source Capacity/Throughput:

Conditions for this source occur in the following groups: CONSENT DECREE - COND 19  
 § 127.12B - LDAR  
 § 60 SUBPART OOOO

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***



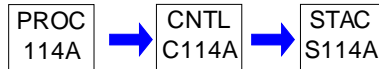
**SECTION D. Source Level Requirements**

Source ID: 114A

Source Name: 1480 BHP COMPRESSOR ENGINE

Source Capacity/Throughput: 12.136 MCF/HR NATURAL GAS

Conditions for this source occur in the following groups: SOURCE TEST SUBMITTALS  
 § 127.12B - COMPRESSOR ENGINES  
 § 60 SUBPART JJJJ  
 § 60 SUBPART OOOO

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 114B

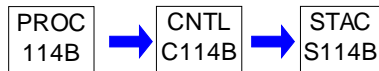
Source Name: 1480 BHP COMPRESSOR ENGINE

Source Capacity/Throughput:

12.136 MCF/HR

NATURAL GAS

Conditions for this source occur in the following groups: SOURCE TEST SUBMITTALS  
 § 127.12B - COMPRESSOR ENGINES  
 § 60 SUBPART JJJJ  
 § 60 SUBPART OOOO

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 114C

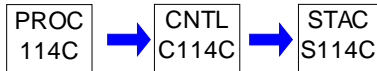
Source Name: 1480 BHP COMPRESSOR ENGINE

Source Capacity/Throughput:

12.136 MCF/HR

NATURAL GAS

Conditions for this source occur in the following groups: SOURCE TEST SUBMITTALS  
 § 127.12B - COMPRESSOR ENGINES  
 § 60 SUBPART JJJJ  
 § 60 SUBPART OOOO

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 114D

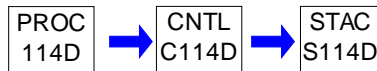
Source Name: 1480 BHP COMPRESSOR ENGINE

Source Capacity/Throughput:

12.136 MCF/HR

NATURAL GAS

Conditions for this source occur in the following groups: SOURCE TEST SUBMITTALS  
 § 127.12B - COMPRESSOR ENGINES  
 § 60 SUBPART JJJJ  
 § 60 SUBPART OOOO

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

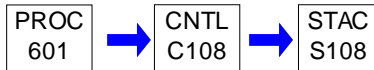
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 601

Source Name: VENTING/BLOWDOWN

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §129.100]****Compliance demonstration and recordkeeping requirements.**

(a) The permittee shall keep records to demonstrate compliance of this source with §§ 129.96—129.99 in the following manner:

(1) The records must include sufficient data and calculations to demonstrate that the requirements of §§ 129.96—129.99 are met.

(2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

(b) The records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

[Paragraphs (a) & (b) of this condition are § 129.100(d) & (i), respectively.]

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 002 [25 Pa. Code §129.97]****Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

The permittee shall install, maintain, and operate the source in accordance with the manufacturer's specifications and with good operating practices.

[§ 129.97(c) for sources meeting § 129.97(c)(2).]



## SECTION D. Source Level Requirements

### VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

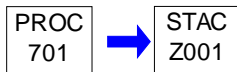
**SECTION D. Source Level Requirements**

Source ID: 701

Source Name: OTHER FUGITIVES

Source Capacity/Throughput:

Conditions for this source occur in the following groups: § 60 SUBPART OOOO

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Fugitive emissions for this source include the following. These are identified in this permit for purposes of reporting emissions.

(1) Compressor rod-packing emissions (i.e., leaking from packing) from all compressors associated with either gas-fired (Sources 114A, 114B, 114C, & 114D) or electrical engines (Source 112).

(2) Crankcase blowby emissions (i.e., in the second stroke of a 4-stroke engine as gas & air have been introduced into piston & compressed) from gas-fired engines (Sources 114A, 114B, 114C, & 114D).

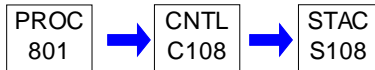
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 801

Source Name: PIGGING OPERATIONS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION D. Source Level Requirements**

Source ID: C108

Source Name: PLANT PROCESS FLARE

Source Capacity/Throughput:

N/A

Natural Gas

N/A

Refinery Gas

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §129.97]****Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

For RACT II purposes, the two flares (C108, C110) meet the requirements of § 129.97(c)(6).

(a) Compliance with § 60.18 for flares (i.e., C108, C110) assures compliance with § 129.97(c).

[§ 60.18 is incorporated under Source Group § 60 SUBPART NNN in Section E of this permit.]

(b) Compliance with recordkeeping provisions of rules citing § 60.18 assures compliance with § 129.100(d) & (i).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: C110

Source Name: TEMPORARY FLARE

Source Capacity/Throughput:

N/A

Natural Gas

N/A

Refinery Gas

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §129.97]****Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

For RACT II purposes, the two flares (C108, C110) meet the requirements of § 129.97(c)(6).

(a) Compliance with § 60.18 for flares (i.e., C108, C110) assures compliance with § 129.97(c).

[§ 60.18 is incorporated under Source Group § 60 SUBPART NNN in Section E of this permit.]

(b) Compliance with recordkeeping provisions of rules citing § 60.18 assures compliance with § 129.100(d) & (i).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 19

Group Description: NSPS and Covered Process Units Applicability.

Sources included in this group

ID	Name
107	PROCESS HEATERS
108	TRUCK AND RAILYARD LOADING
109	STORAGE TANK
110	GAS PROCESSING PLANT VENTING
112	ELECTRIC COMPRESSOR ENGINES

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.****V. INJUNCTIVE RELIEF****A. Subpart OOOO Applicability to Process Units**

19. NSPS and Covered Process Units Applicability.

a. All Process Units at the following Covered Facilities are subject to Subpart OOOO upon the Effective Date:  
Bluestone Facility; ...

[Applicable provisions of § 60 Subpart OOOO are incorporated under Source Group § 60 SUBPART OOOO in Section E of this permit.]

b. - d. [Not Applicable]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 59 TO 65

Group Description: Pilot-Operated Modulating Pressure Relief Valves ("PORVs")

Sources included in this group

ID	Name
110	GAS PROCESSING PLANT VENTING

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.****V. INJUNCTIVE RELIEF****C. Pilot-Operated Modulating Pressure Relief Valves ("PORVs")**

59. As of the Effective Date of this Consent Decree, "Markwest Liberty Bluestone, LLC" shall install and operate Bottom Dome Vent Piping on any new PORV that is or will be subject to the requirements of Subpart OOOO, with the exception of the PORV categories identified in Subparagraph 59.a or b:

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

60. Beginning with the first full calendar Quarter after the Effective Date of the Consent Decree, or the alternative work practice in accordance with 40 C.F.R. § 60.18(g)-(i), "Markwest Liberty Bluestone, LLC" shall conduct Method 21 monitoring on PORVs subject to Subpart OOOO on a quarterly frequency, unless: (i) more frequent monitoring is required by federal, state, or local laws or regulations; or (ii) the relevant Covered Process Unit has been permanently shut down.

61. "Markwest Liberty Bluestone, LLC" shall repair all leaks of PORVs detected at or above 500 ppm in accordance with this Paragraph:

**SECTION E. Source Group Restrictions.**

a. By no later than five Days after detecting a leak, "Markwest Liberty Bluestone, LLC" shall perform a first attempt at repair of the PORV. By no later than 15 Days after detection, "Markwest Liberty Bluestone, LLC" shall perform a final attempt at repair of the PORV or place it on the DOR list provided that "Markwest Liberty Bluestone, LLC" have complied with all applicable regulations.

b. "Markwest Liberty Bluestone, LLC" shall conduct Repair Verification Monitoring after repair of any leaks.

c. For all PORVs placed on the DOR list, "Markwest Liberty Bluestone, LLC" shall:

i. Require sign-off from the relevant process unit supervisor or person of similar authority that the PORV is technically infeasible to repair without a process unit shutdown;

ii. Undertake monthly Method 21 monitoring of PORVs placed on the DOR list; and

iii. Repair the PORV within the time frame required by the applicable LDAR regulation.

63. For the purposes of this Consent Decree, the following PORVs with pressure safety valve (PSV) identification numbers located at the Bluestone Facility are not covered by this Consent Decree: PSV-1003A, PSV-1003B, PSV-V103, and 0-PSV-1001.

65. For each leak identified under Paragraph 61 above, "MarkWest Liberty Bluestone, LLC" shall record the following information: the date the leak was identified and the Screening Value; the date of all repair attempts; the repair methods used during each repair attempt; the date, time, and Screening Values for all re-monitoring events; and, if applicable, documentation of compliance with Subparagraph c. for PORVs placed on the DOR list.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 67

Group Description: Subpart NNN

**Sources included in this group**

ID	Name
110	GAS PROCESSING PLANT VENTING

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

## V. INJUNCTIVE RELIEF

## D. Subpart NNN

67. Beginning no later than 90 Days after the Effective Date, the following Covered Facilities shall comply with Subpart NNN as specified in Paragraph 68 at Distillation Units that are "affected facilities" as defined under 40 C.F.R. § 60.660: Bluestone, ....

[Applicable requirements of § 40 CFR 60 Subpart NNN are incorporated under Source Group § 60 SUBPART NNN in Section E of this permit.]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 79 TO 81

Group Description: Hose Connections to Railcar/Truck Loading Operations

**Sources included in this group**

ID	Name
108	TRUCK AND RAILYARD LOADING

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.****V. INJUNCTIVE RELIEF****G. Hose Connections to Railcar/Truck Loading Operations**

79. By no later than 180 Days after the Effective Date, "Markwest Liberty Bluestone, LLC" shall use either of the following options to monitor for leaks at any hose connections in VOC service during railcar or truck loading operations, or representative of loading conditions, at each railcar or truck loading bay at any Covered Facility:

a. "Markwest Liberty Bluestone, LLC" shall conduct OGI monitoring in accordance with 40 C.F.R. § 60.18(g)-(i) of such hose connections during railcar or truck loading operations, or representative of loading conditions, at least once within each 60-Day period after 180 Days after the Effective Date at any railcar or truck loading bay that operates at least once during such 60-Day period, and by no later than 365 Days after the Effective Date, and annually thereafter, shall conduct Method 21 monitoring of such hose connections for any leaks above 500 ppm.

b. "Markwest Liberty Bluestone, LLC" shall conduct Method 21 monitoring for any leaks above 500ppm quarterly to identify leaks at any hose connections during railcar or truck loading operations, or representative of loading conditions, at each railcar or truck loading bay at any Covered Facility.

80. "Markwest Liberty Bluestone, LLC" shall repair all leaks of hose connections identified under Paragraph 79, above,

**SECTION E. Source Group Restrictions.**

in accordance with the following requirements:

- a. By no later than five Days after detecting a leak, "Markwest Liberty Bluestone, LLC" shall perform a first attempt at repair;
  - b. By no later than 15 Days after detection, "Markwest Liberty Bluestone, LLC" shall perform a final attempt at repair; and,
  - c. By no later than the end of the next Maintenance Shutdown.
81. "MarkWest Liberty Bluestone, LLC" shall maintain the following records:
- a. Identification of each railcar loading and truck loading bay at each Covered Facility.
  - b. For each bay, dates of OGI and Method 21 monitoring event, and for each monitoring event, identification and number of connections that triggered leak repair requirements; and
  - c. Dates of first attempt and final attempts at repair.

\*\*\* **Permit Shield in Effect.** \*\*\*



**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 83 TO 86

Group Description: Natural Gasoline Storage Vessels

Sources included in this group

ID	Name
109	STORAGE TANK

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.****V. INJUNCTIVE RELIEF****H. Natural Gasoline Storage Vessels**

83. Beginning with the first full calendar Quarter that begins after the Effective Date of the Consent Decree, for Natural Gasoline Storage Vessels operating at Covered Facilities, "Markwest Liberty Bluestone, LLC" shall conduct Method 21 monitoring for any leaks above 500 ppm from pressure relief devices operating on such Natural Gasoline Storage Vessels on a quarterly basis.

84. Except as provided in Paragraph 85 below, "Markwest Liberty Bluestone, LLC" shall repair all leaks of pressure relief devices identified under Paragraph 83 above, in accordance with the following requirements:

- a. By no later than five Days after detecting a leak, "Markwest Liberty Bluestone, LLC" shall perform a first attempt at repair;
- b. By no later than 15 Days after detection, "Markwest Liberty Bluestone, LLC" shall perform a final attempt at repair;
- c. "Markwest Liberty Bluestone, LLC" shall conduct Repair Verification Monitoring after repair of any leaks; and

**SECTION E. Source Group Restrictions.**

d. For all pressure relief devices placed on the DOR list, "Markwest Liberty Bluestone, LLC" shall:

- i. Require sign-off from the relevant process unit supervisor or person of similar authority that the pressure relief device is technically infeasible to repair without a process unit shutdown;
- ii. Undertake quarterly Method 21 monitoring of pressure relief devices placed on the DOR list; and
- iii. Repair the pressure relief devices within the time frame required by the applicable LDAR regulation.

85. If "MarkWest Liberty Bluestone, LLC" detect leaks of any such pressure relief device above 500 ppm in two consecutive quarterly monitoring periods for the Bluestone Facility, "MarkWest Liberty Bluestone, LLC" shall install an Isolation Valve upstream of the pressure relief device within 30 Days, or as soon as reasonably practicable thereafter, of identifying the second leak.

86. "MarkWest Liberty Bluestone, LLC", subject to Paragraphs 84 and 85 above, shall maintain the following records:

- a. For each Natural Gasoline Storage Vessel subject to Paragraph 83, dates of each Method 21 monitoring event of each pressure relief valve on such vessel and identification;
- b. Dates of first attempt and final attempts at repair, or indication of pressure relief valve being placed on the DOR list; and
- c. Date that an Isolation Valve was installed on the Natural Gasoline Storage Vessel, as appropriate.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 87

Group Description: Large Hot Oil Heaters Subject to NSPS Db

Sources included in this group

ID	Name
107	PROCESS HEATERS

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Applies to Source 107's 6-H-851 Fractionation HMO Heater (119.2 mmbtu/hr).]

**V. INJUNCTIVE RELIEF****I. Large Hot Oil Heaters Subject to NSPS Db**

87. Each steam generating unit at a Covered Facility with a design firing rate greater than 29 Megawatts (100 million British thermal units ("MMBtu/h")) ("Large Hot Oil Heaters"), shall comply with 40 C.F.R. § 60.40b-49b (NSPS Subpart Db). [Omitted the phrase 'as set forth below' at the end of the paragraph as Paragraphs 88 through 93 are not included in accordance with Paragraph 102. These paragraphs reference § 60 Subpart Db and the Performance Specification 16 of Appendix B to Part 60 for development of predictive emission monitoring system (PEMS).]

[Applicable requirements of § 40 CFR 60 Subpart Db are incorporated under Source Group § 60 SUBPART DB in Section E of this permit.]

89. [Omitted this paragraph on use of existing PEMS developed for other large hot oil heaters covered by the Consent Decree. A PEMS model has been developed specifically for 6-H-851 Fractionation HMO Heater.]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: CONSENT DECREE - COND 94

Group Description: Small Hot Oil Heaters Subject to NSPS Dc

**Sources included in this group**

ID	Name
107	PROCESS HEATERS

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Applies to Source 107's 2-H-801 Bluestone II HMO Heater (18.52 mmbtu/hr), 2-H-802- Depropanizer I HMO Heater (42.4 mmbtu/hr), 3-H-781 Bluestone III HMO Heater (13.68 mmbtu/hr), 6-H-852 Fractionation HMO Heater (64.5 mmbtu/hr), and 7-H-1768 Deethanizer II HMO Heater (60.7 mmbtu/hr).]

**V. INJUNCTIVE RELIEF**

J. Small Hot Oil Heaters Subject to NSPS Dc

94. a. By no later than 180 Days after the Effective Date, each steam generating unit at a Covered Facility with a design firing rate less than 29 Megawatts (100 MMBtu/h) or less, but greater than or equal to 2.9 Megawatts (10 MMBtu/h) ("Small Hot Oil Heaters"), shall comply with the 40 C.F.R. § 60.40c-48c (NSPS Subpart Dc). [Omitted the phrase 'as set forth below' at the end of the paragraph as Paragraphs 95 and 96 are not included in accordance with Paragraph 102. These paragraphs reference § 60 Subpart Dc.]

[Applicable requirements of § 40 CFR 60 Subpart Dc are incorporated under Source Group § 60 SUBPART DC in Section E of this permit.]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: SOURCE TEST SUBMITTALS

Group Description: Conditions for all source test submittals (Source Testing Section, August 17, 2018)

Sources included in this group

ID	Name
103A	REFRIGERANT COMPRESSOR
103B	REFRIGERANT COMPRESSOR
107	PROCESS HEATERS
114A	1480 BHP COMPRESSOR ENGINE
114B	1480 BHP COMPRESSOR ENGINE
114C	1480 BHP COMPRESSOR ENGINE
114D	1480 BHP COMPRESSOR ENGINE

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source test submittals shall be as follows:

- (1) At least 90 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department for review and approval in accordance with paragraph (8) of this condition. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (2) At least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the Department in accordance with paragraph (8)(B) of this condition. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department (Source Testing Section).
- (3) Within 15 calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification indicating the completion date of the on-site testing shall be sent to the Department in accordance with paragraph (8)(B) of this condition.
- (4) A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the onsite testing portion of an emission test program.
- (5) A complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
  - (A) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
  - (B) Permit number(s) and condition(s) which are the basis for the evaluation.
  - (C) Summary of results with respect to each applicable permit condition.
  - (D) Statement of compliance or non-compliance with each applicable permit condition.
- (6) All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (7) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (8)

**SECTION E. Source Group Restrictions.**

(A) All submittals, besides notifications, shall be accomplished through PSIMS\*Online, available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp>, when it becomes available.

(B) If internet submittal cannot be accomplished, one paper copy plus one electronic copy of all source test submissions (notifications, protocols, reports, supplemental information, etc.) shall be sent to both PSIMS Administration in Central Office and to Regional Office AQ Program Manager.

Paper copies shall be sent using the following mailing addresses:

**CENTRAL OFFICE:**

Pennsylvania Department of Environmental Protection  
Attn: PSIMS Administrator  
P.O. Box 8468  
Harrisburg, PA 17105-8468

**NORTHWEST REGIONAL OFFICE:**

Pennsylvania Department of Environmental Protection  
Attn: Air Quality Program Manager  
230 Chestnut St.  
Meadville, PA 16335

Electronic copies shall be sent at the following e-mail addresses:

**CENTRAL OFFICE:**

RA-EPstacktesting@pa.gov

**NORTHWEST REGIONAL OFFICE:**

RA-EPNWstacktesting@pa.gov

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: § 127.12B - COMPRESSOR ENGINES

Group Description: PA 10-368F requirements for the four (4) compressor engines

Sources included in this group

ID	Name
114A	1480 BHP COMPRESSOR ENGINE
114B	1480 BHP COMPRESSOR ENGINE
114C	1480 BHP COMPRESSOR ENGINE
114D	1480 BHP COMPRESSOR ENGINE

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

(a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.

(b) Not applicable

(c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:

(1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:

(i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

(ii) - (iii) Not applicable

(2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) Not applicable

**# 002 [25 Pa. Code §123.21]****General**

(a) Not applicable

(b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

Emissions from these engines shall not exceed the following:

NO<sub>x</sub>: 0.20 g/BHP-hr (per engine)

CO: 0.25 g/BHP-hr (per engine)

VOC: 0.16 g/BHP-hr (per engine)

Formaldehyde: 0.01 g/BHP-hr (per engine)

**SECTION E. Source Group Restrictions.****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

(a) Within sixty (60) days after achieving the rated brake horsepower, but no later than one hundred eighty (180) days after initial start-up of each engine, the permittee shall perform stack testing on each compressor engine for NO<sub>x</sub>, CO, Volatile Organic Compounds (VOC), and Formaldehyde (HCHO). Engine testing load conditions shall be representative to within 10% of maximum load design capacity or to within 10% of the maximum permitted operating load as proposed by the applicant.

(b) In addition to the stack testing required by this condition, within 12 months after the initial stack testing, and annually thereafter, the owner or operator shall perform NO<sub>x</sub> and CO emissions tests upon each engine using a portable analyzer approved by the Department. The Department may alter the frequency of annual portable analyzer tests based on the results. The Department may also waive all or parts of this requirement if the owner or operator demonstrates compliance, in lieu of testing, through alternate means satisfactory to the Department.

[§ 60 Subpart JJJJ, which applies to the sources of this source group, requires subsequent stack tests every 8,760 hour or 3 years, whichever comes first.]

(c) The Department reserves the right to require stack tests in accordance with EPA reference methods should the data from the portable analyzer warrant such tests. The purpose of this testing is to demonstrate compliance with the emission limitations required for new engines.

(d) If performance stack tests are required for the demonstration of compliance with applicable emissions limits, the owner or operator of the affected facility shall comply with the following requirements:

(A) Within sixty (60) days after achieving the rated brake horsepower, but no later than one hundred eighty (180) days after the initial startup of the SI ICE, the owner or operator shall demonstrate compliance with the applicable emission limits. Combined emissions of VOC excluding formadehyde (via US EPA Method 18 / 25A, or equivalent), and formalehyde (via US EPA Method 320, or equivalent) shall be considered for the purposes of demonstrating compliance with the VOC emission limit(s) of this Plan Approval.

(B) - (G) [Omitted. For the latest instructions on source test submittals (Source Testing Section, August 17, 2018), follow the requirements of Source Group SOURCE TEST SUBMITTALS in Section E of this permit, Condition #001, paragraphs (1) to (6).]

(H) All testing shall be performed in accordance with any applicable federal regulations (such as New Source performance Standards, Subpart I); 25 Pa. Code, Chapter 139; and the current revision of the Department's Source Testing Manual or an alternative test method as approved by the Department. The following federal reference methods or alternative test method as approved by the Department shall be used to demonstrate compliance:

- 40 CFR 60, Appendix A, Method 7E shall be used to determine the NO<sub>x</sub> emissions.
- 40 CFR 60, Appendix A, Method 10 shall be used to determine the CO emissions.
- 40 CFR 60, Appendix A, Method 18 shall be used to determine the VOC emissions.
- 40 CFR Part 63 Appendix A, Method 320 shall be used to determine the HCHO emissions.

(I) [Omitted. For the latest instructions on source test submittals (Source Testing Section, August 17, 2018), follow the requirements of Source Group SOURCE TEST SUBMITTALS in Section E of this permit, Condition #001, paragraph (8).]

(J) The owner or operator shall ensure that all applicable federal reporting requirements are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between federal and state laws and regulation, the permittee shall comply with the most stringent provision, term, condition, method or rule.

(K) If, at any time, the Department has reason to believe that the air contaminant emissions from the exhaust of SI ICE(s) operating under this Plan Approval are, or may be, in excess of any applicable air contaminant emission limitation, the owner or operator shall conduct stack tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The owner or operator shall perform any such testing in accordance with the applicable



**SECTION E. Source Group Restrictions.**

provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) as well as in accordance with any additional requirements or conditions established by the Department at the time the owner or operator is notified, in writing, of the need to conduct testing.

**III. MONITORING REQUIREMENTS.****# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

(a) The owner or operator shall measure inlet temperature, outlet temperature, inlet pressure, and outlet pressure at least once a month for each source.

(b) The facility shall monitor at least once per week the air/fuel ratio controller set point for each source.

**IV. RECORDKEEPING REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

(a) The permittee shall maintain a record of all preventative maintenance inspections of these source(s) and control device(s). These records shall, at a minimum, contain the dates of the inspections, any problems or defects, any actions taken to correct the problems or defects, and any routine maintenance performed.

(b) The permittee shall maintain monthly records of the amount of fuel combusted and hours of operation for each engine.

(c) All required records shall be maintained on site for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

(a) The permittee shall maintain records of the required monitoring of NSCR catalyst inlet and outlet temperature(s) and pressure(s), and air to fuel ratio setpoint(s), to determine compliance with the applicable permit limits.

(b) All required records shall be maintained on site for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 008 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

(a) NSCR inlet temperatures shall be maintained in the range of 750-1250°F.

(b) NSCR outlet temperatures shall not exceed 1350°F.

(c) Air to fuel ratio controller O<sub>2</sub> level setpoints shall be maintained within a range of  $\pm 0.003$  of the setpoint observed during the most recent compliant stack test; and shall at all times be maintained in the range of 0.9-1.3.

(d) [Receipt of a letter, dated June 22, 2018, containing the proposed pressure differential range completed and assured compliance with this one-time plan approval condition. See other work practice condition for this source group for the

**SECTION E. Source Group Restrictions.**

pressure differential range.]

**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The pressure differential range across the NSCR catalyst(s) shall be maintained within the range of 0.5 to 5.0 inches of water column.

[This setting is based on a letter dated June 22, 2018, in compliance with Condition #016(d) of PA 10-368F.]

**# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368F]

(a) The permittee shall install, maintain, and operate an appropriately designed air-to-fuel ratio controller on each engine.

(b) The permittee shall install, maintain, and operate these source(s) and control device(s) in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**VII. ADDITIONAL REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For RACT II purposes, Sources 114A, 114B, 114C, & 114D are subject to § 129.97(g)(3)(iii) – i.e., rich burn stationary internal combustion engine with a rating equal to or greater than 500 bhp.

(a) Compliance with PA 10-368F's 0.16 g/bhp-hr VOC limit assures compliance with § 129.97(g)(3)(iii)(B)'s 1.0 g/bhp-hr limit.

(b) Compliance with PA 10-368F's testing & recordkeeping requirements assures compliance with § 129.100(a)(4), (d) & (i).

\*\*\* **Permit Shield in Effect.** \*\*\*

**SECTION E. Source Group Restrictions.**

Group Name: § 127.12B - LDAR

Group Description: Leak Detection and Repair Program, GP5 10-368B and PA 10-368D &amp; E

**Sources included in this group**

ID	Name
107	PROCESS HEATERS
108	TRUCK AND RAILYARD LOADING
109	STORAGE TANK
110	GAS PROCESSING PLANT VENTING
112	ELECTRIC COMPRESSOR ENGINES

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

**# 001 [25 Pa. Code §127.12b]  
Plan approval terms and conditions.**

[GP5 10-368B, PA 10-368D & E]

(1) The owner or operator of the natural gas compression and/or processing facility shall, at a minimum, on a monthly basis perform a leak detection and repair program that includes audible, visual, and olfactory ("AVO") inspections.

(2) Within 180 calendar days after the initial startup of a source, the owner or operator of the facility shall at a minimum, on a quarterly basis, use forward looking infrared ("FLIR") cameras or other leak detection monitoring devices approved by the Department for the detection of fugitive leaks. The Department may grant an extension for use of a FLIR camera upon receipt of a written request from the owner or operator of the facility documenting the justification for the requested extension.

(3) If any leak is detected, the owner or operator of the facility shall repair the leak as expeditiously as practicable, but no later than fifteen (15) calendar days after the leak is detected, except as provided in 40 CFR §§ 60.482- 60.489. The owner or operator shall record each leak detected and the associated repair activity. The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



**SECTION E. Source Group Restrictions.**

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: § 127.12B - REFRIGERANT COMPRESSORS

Group Description: PA 10-368A &amp; B requirements for the two (2) refrigerant compressors

Sources included in this group

ID	Name
103A	REFRIGERANT COMPRESSOR
103B	REFRIGERANT COMPRESSOR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

(a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.

(b) Not applicable

(c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:

(1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:

(i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

(ii) - (iii) Not applicable

(2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) Not applicable

**# 002 [25 Pa. Code §123.21]****General**

(a) Not applicable

(b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & B]

Emissions from these engines shall not exceed the following:

(a) NO<sub>x</sub>: 0.3 g/BHP-hr (per engine)

(b) CO: 0.65 g/BHP-hr (per engine) [streamlined out by paragraph (d)]

(c) VOC: 0.25 g/BHP/hr (per engine) [streamlined out by paragraph (e)]

[The CO and VOC emissions limits from this requirement have been streamlined with the more stringent restrictions as follows.]

(d) CO - 0.50 gms/hp-hr (per engine); 0.93 #/hr (per engine); and 8.11 TPY for the total of the 2 engines.

(e) VOC - 0.20 gms/hp-hr (per engine); 0.37 #/hr (per engine); and 3.24 TPY for the total of the 2 engines.

**SECTION E. Source Group Restrictions.****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & B]

Formaldehyde emissions from these engines shall not exceed 0.068 lb/hr, per engine.

**II. TESTING REQUIREMENTS.****# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & B]

(a) Within sixty (60) days after achieving the rated brake horsepower, but no later than one hundred eighty (180) days after initial start-up of each engine, the permittee shall perform stack testing on each compressor engine for NO<sub>x</sub>, CO, Volatile Organic Compounds (VOC), and Formaldehyde (HCHO). Engine testing load conditions shall be representative to within 10% of maximum load design capacity or to within 10% of the maximum permitted operating load as proposed by the applicant.

(b) In addition to the stack testing required by this condition, within 12 months after the initial stack testing, and annually thereafter, the owner or operator shall perform NO<sub>x</sub> and CO emissions tests upon each engine using a portable analyzer approved by the Department. The Department may alter the frequency of annual portable analyzer tests based on the results. The Department may also waive all or parts of this requirement if the owner or operator demonstrates compliance, in lieu of testing, through alternate means satisfactory to the Department.

[§ 60 Subpart JJJJ, which applies to the sources of this source group, requires subsequent stack tests every 8,760 hour or 3 years, whichever comes first.]

(c) The Department reserves the right to require stack tests in accordance with EPA reference methods should the data from the portable analyzer warrant such tests. The purpose of this testing is to demonstrate compliance with the emission limitations required for new engines.

(d) If performance stack tests are required for the demonstration of compliance with applicable emissions limits, the owner or operator of the affected facility shall comply with the following requirements:

(A) Within sixty (60) days after achieving the rated brake horsepower, but no later than one hundred eighty (180) days after the initial startup of the SI ICE, the owner or operator shall demonstrate compliance with the applicable emission limits. Combined emissions of VOC excluding formaldehyde (via US EPA Method 18 / 25A, or equivalent), and formaldehyde (via US EPA Method 320, or equivalent) shall be considered for the purposes of demonstrating compliance with the VOC emission limit(s) of this Plan Approval.

(B) - (G) [Omitted. For the latest instructions on source test submittals (Source Testing Section, August 17, 2018), follow the requirements of Source Group SOURCE TEST SUBMITTALS in Section E of this permit, Condition #001, paragraphs (1) to (6).]

(H) All testing shall be performed in accordance with any applicable federal regulations (such as New Source performance Standards, Subpart I); 25 Pa. Code, Chapter 139; and the current revision of the Department's Source Testing Manual or an alternative test method as approved by the Department. The following federal reference methods or alternative test method as approved by the Department shall be used to demonstrate compliance:

- 40 CFR 60, Appendix A, Method 7E shall be used to determine the NO<sub>x</sub> emissions.
- 40 CFR 60, Appendix A, Method 10 shall be used to determine the CO emissions.
- 40 CFR 60, Appendix A, Method 18 shall be used to determine the VOC emissions.
- 40 CFR Part 63 Appendix A, Method 320 shall be used to determine the HCHO emissions.

(I) The owner/operator shall ensure that the stack height at Bluestone facility will not exceed the GEP stack height, as intended by GEP.

(J) [Omitted. For the latest instructions on source test submittals (Source Testing Section, August 17, 2018), follow the

**SECTION E. Source Group Restrictions.**

requirements of Source Group SOURCE TEST SUBMITTALS in Section E of this permit, Condition #001, paragraph (8).]

(K) The owner or operator shall ensure that all applicable federal reporting requirements are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between federal and state laws and regulation, the permittee shall comply with the most stringent provision, term, condition, method or rule.

(L) If, at any time, the Department has reason to believe that the air contaminant emissions from the exhaust of SI ICE(s) authorized under this Plan Approval are, or may be, in excess of any applicable air contaminant emission limitation, the owner or operator shall conduct stack tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The owner or operator shall perform any such testing in accordance with the applicable provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) as well as in accordance with any additional requirements or conditions established by the Department at the time the owner or operator is notified, in writing, of the need to conduct testing.

(M) The owner or operator of a SI ICE located in the regions for which the daily Air Quality Index (AQI) and AQI forecast is available shall not perform any testing and/or tuning on days that the AQI is forecast to be higher than 100 for either Ozone or PM<sub>2.5</sub>. The owner or operator may check or obtain by e-mail daily AQI and AQI forecast by registering at <http://www.aqpartners.org>

**III. MONITORING REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & B]

(a) The facility shall follow manufacturer's recommendations as to the temperature and pressure change needed across the NSCR to ensure proper performance. The owner or operator shall measure inlet temperature, outlet temperature, inlet pressure, and outlet pressure at least once a month for each source and indicate along with the manufacturer's values or range of values for immediate reference.

(b) The facility shall monitor at least once per week the air/fuel ratio controller set point for each source.

**IV. RECORDKEEPING REQUIREMENTS.****# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & B]

(a) The permittee shall maintain a record of all preventative maintenance inspections of these source(s). These records shall, at a minimum, contain the dates of the inspections, any problems or defects, any actions taken to correct the problems or defects, and any routine maintenance performed.

(b) The permittee shall maintain monthly records of the amount of fuel combusted and hours of operation for each engine.

(c) All required records shall be maintained for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain records of the required monitoring of NSCR catalyst inlet and outlet temperature(s) and pressure(s), and air to fuel ratio setpoint(s), to determine compliance with the applicable permit limits (i.e., manufacturer's recommendations).

(b) All required records shall be maintained on site for a minimum of five (5) years, and shall be made available to Department personnel upon request.

**SECTION E. Source Group Restrictions.****V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[PA 10-368A & B]

- (a) The permittee shall install, maintain, and operate an appropriately designed air-to-fuel ratio controller on each engine.
- (b) The permittee shall install, maintain, and operate these source(s) and control device(s) in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**VII. ADDITIONAL REQUIREMENTS.****# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For RACT II purposes, Sources 103A & 103B are subject to § 129.97(g)(3)(iii) – i.e., rich burn stationary internal combustion engine with a rating equal to or greater than 500 bhp.

- (a) Compliance with PA 10-368A & B's 0.20 g/bhp-hr VOC limit assures compliance with § 129.97(g)(3)(iii)(B)'s 1.0 g/bhp-hr limit.
- (b) Compliance with PA 10-368A & B's testing & recordkeeping requirements assures compliance with § 129.100(a)(4), (d) & (i).

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION E. Source Group Restrictions.**

Group Name: § 60 SUBPART DB

Group Description: NSPS for industrial-commercial-institutional steam generating units.

Sources included in this group

ID	Name
107	PROCESS HEATERS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Condition of this source group applies only to Source 107's 6-H-851 Fractionation HMO Heater (119.2 mmbtu/hr).

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.44b]****Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units Standard for nitrogen oxides.**

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOX (expressed as NO<sub>2</sub>) in excess of the following emission limits:

FUEL/STEAM GENERATING UNIT TYPE	NITROGEN OXIDE EMISSION LIMITS (EXPRESSED AS NO <sub>2</sub> ) HEAT INPUT
(1) Natural gas and distillate oil, except (4)	
(i) Low heat release rate	43 ng/J (0.10 lb/mmbtu)
(ii) [Not Applicable]	
(2) - (4) [Not Applicable]	

[Consent Decree (Case: 3:18-cv-02526. Filed November 1, 2018), Paragraph 90 requires compliance with the NO<sub>x</sub> limit of 0.10 lb/mmbtu for all large hot oil heaters are required by § 60.44b(a).]

(b) - (g) [Not Applicable]

(h) For purposes of paragraph (i) of this section, the NO<sub>x</sub> standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

(j) [Not Applicable. As per Consent Decree, Paragraph 92, NO<sub>x</sub> emission to be calculated as 30-day rolling average.]

(k) [Not Applicable]

(l) [Not Applicable. As per Consent Decree, Paragraph 90, large hot oil heaters must comply with the 0.10 lb/mmbtu NO<sub>x</sub> limit pursuant to § 60.44b(a).]

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

**II. TESTING REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee complies with NO<sub>x</sub> emission monitoring requirement of § 60 Subpart Db through use of PEMS (Predictive Emission Monitoring System) pursuant to § 60.48b(g)(2). PEMS models/plans are subject to the requirements of

**SECTION E. Source Group Restrictions.**

PERFORMANCE SPECIFICATION 16 (PS-16) (Specifications and test procedures for PEMS in stationary sources) in § 40 Part 60, Appendix B.

(1) Applicability is detailed in PS-16, Paragraph 1.1.

(2) As per PS-16, Paragraph 2.2, periodic quality assurance assessments include quarterly relative accuracy audits (RAA) and yearly relative accuracy test audits (RATA).

(3) PS-16 is cited in this permit by reference only.

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.46b]  
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units  
Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.**

(a) The NOX emission standards under §60.44b apply at all times. [Omitted reference to PM and opacity standards, which do not apply.]

(b) [Not Applicable]

(c) Compliance with the NOX emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

(d) [Not Applicable]

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

[Consent Decree, Paragraph 91 references § 60.48b(g)(2).]

(1) For the initial compliance test, NOX from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOX emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(2) - (3) [Not Applicable]

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

[Omitted phrase stating that § 60.48b(g)(1) and (g)(2) will not be used to determine compliance with the NOx emission standards. Consent Decree, Paragraph 91 states that § 60.48b(g)(2) will be used to demonstrate compliance with the 0.10 lb/mmbtu NOx limit.]

(5) [Not Applicable]

(f) - (j) [Not Applicable]

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9460, Feb. 16, 2012; 79 FR 11249, Feb. 27, 2014]

**SECTION E. Source Group Restrictions.****III. MONITORING REQUIREMENTS.****# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]  
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units  
Emission monitoring for particulate matter and nitrogen oxides.**

(a) [Not Applicable]

(b) - (f) [Omitted. Consent Decree, Paragraph 91 states that § 60.48b(g)(2) will be used to demonstrate compliance with the applicable NOx limit.]

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

(1) [Omitted; this cites sections/provisions on CEMS (Continuous Emission Monitoring System). Consent Decree, Paragraph 91 states that § 60.48b(g)(2) will be used to demonstrate compliance with the applicable NOx limit.]

(2) Monitor steam generating unit operating conditions and predict NOx emission rates as specified in a plan submitted pursuant to §60.49b(c). [Consent Decree, Paragraph 93 references § 60.49b(c), which is on use of PEMS (Predictive Emission Monitoring System).]

(h) - (l) [Not Applicable]

[72 FR 32742, June 13, 2007, as amended at 74 FR 5087, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9460, Feb. 16, 2012]

**IV. RECORDKEEPING REQUIREMENTS.****# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]  
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units  
Reporting and recordkeeping requirements.**

(a) - (c) [See V. Reporting Requirements for this source group.]

(d) Except as provided in paragraph (d)(2) of this section, the owner or operator of an affected facility shall record and maintain records as specified in paragraph (d)(1) of this section.

(1) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day. [Omitted statements on annual capacity factor. The heater in this source group only combusts natural gas.]

(2) [Omitted. Although the heater in this source group only combusts a single fuel (natural gas), it is affected by the monitoring required by the Consent Decree.]

(e) - (f) [Not Applicable]

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NOx standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The average hourly NOx emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;

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

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

**SECTION E. Source Group Restrictions.**

- (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- (8) - (10) [Not Applicable]
- (h) - (i) [See V. Reporting Requirements for this source group.]
- (j) - (n) [Not Applicable]
- (o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.
- (p) - (u) [Not Applicable]
- (v) - (w) [See V. Reporting Requirements in this source group.]
- (x) - (y) [Not Applicable]

[72 FR 32742, June 13, 2007, as amended at 74 FR 5089, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

**V. REPORTING REQUIREMENTS.**

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]  
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units  
Reporting and recordkeeping requirements.**

- (a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:
- (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility;
- (2) [Not Applicable]
- (3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired; and
- (4) [Not Applicable]
- (b) The owner or operator of each affected facility subject to the SO<sub>2</sub>, PM, and/or NO<sub>x</sub> emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. [Omitted statement referencing § 60.44b(j) and (k), which do not apply.]
- (c) The owner or operator of each affected facility subject to the NO<sub>x</sub> standard in §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in §60.48b(g)(2) and the records to be maintained in §60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall: [Omitted statement on coke gas oven.]
- (1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO<sub>x</sub> emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not

**SECTION E. Source Group Restrictions.**

limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas O<sub>2</sub> level);

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

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(g).

(d) [See IV. Recordkeeping Requirements for this source group.]

(g) [See IV. Recordkeeping Requirements for this source group.]

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

(1) [Not Applicable]

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

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

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

(3) - (4) [Not Applicable]

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NOX under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NOX and/or opacity in lieu of submitting the written reports required under paragraphs (h), or (i) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [Omitted reference to paragraphs (j), (k), and (l) of this section, which do not apply.]

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5089, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

For informational purposes, the following are sections of § 60 Subpart Db that do not apply to this source group.

**SECTION E. Source Group Restrictions.**

- (a) § 60.42b - Standard for sulfur dioxide (SO<sub>2</sub>)
- (b) § 60.43b - Standard for particulate matter (PM)
- (c) § 60.45b - Compliance and performance test methods and procedures for sulfur dioxide
- (d) § 60.47b - Emission monitoring for sulfur dioxide

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.40b]  
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units  
Applicability and delegation of authority.**

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

(b) - (m) [Not Applicable]

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

[40 CFR Part 60, Subpart Db became applicable to the Large Hot Oil Heater in this Source Group as a result of the Consent Decree (Case: 3:18-cv-02526, Filed November 1, 2018) filed in the US District Court of the Northern District of Ohio. Per the Decree, these requirements will remain applicable, even after the termination of the Consent Decree.]

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.41b]  
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units  
Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

[Below are select definitions for purposes of this permit.]

**ANNUAL CAPACITY FACTOR** means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

**GASEOUS FUEL** means any fuel that is a gas at ISO conditions. This includes, but is not limited to, natural gas and gasified coal (including coke oven gas).

**HEAT INPUT** means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

**HEAT RELEASE RATE** means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

**HEAT TRANSFER MEDIUM** means any material that is used to transfer heat from one point to another point.

**ISO CONDITIONS** means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

**LOW HEAT RELEASE RATE** means a heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hr-ft<sup>3</sup>) or less.

**MAXIMUM HEAT INPUT CAPACITY** means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

**NATURAL GAS** means:

**SECTION E. Source Group Restrictions.**

- (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or
- (2) Liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or
- (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

PROCESS HEATER means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

STEAM GENERATING UNIT means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

STEAM GENERATING UNIT OPERATING DAY means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

[72 FR 32742, June 13, 2007, as amended at 74 FR 5084, Jan. 28, 2009; 77 FR 9459, Feb. 16, 2012]

\*\*\* **Permit Shield in Effect.** \*\*\*

**SECTION E. Source Group Restrictions.**

Group Name: § 60 SUBPART DC

Group Description: NSPS for small industrial-commercial-institutional steam generating units

Sources included in this group

ID	Name
107	PROCESS HEATERS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Condition of this source group applies to the following hot oil heater included in Source 107.

- (1) 2-H-801 Bluestone II HMO Heater (18.52 mmbtu/hr)
- (2) 2-H-802 Depropanizer I HMO Heater (42.4 mmbtu/hr)
- (3) 3-H-781 Bluestone III HMO Heater (13.68 mmbtu/hr)
- (4) 6-H-852 Fractionation HMO Heater (64.5 mmbtu/hr)
- (5) 7-H-1768 Deethanizer II HMO Heater (60.7 mmbtu/hr)

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]****Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Reporting and recordkeeping requirements.**

(a) [See V. Reporting Requirements for this source group.]

(b) - (f) [Not Applicable]

(g)

(1) [Omitted. Consent Decree, Paragraph 95 references § 60.48c(g)(2).]

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [Consent Decree, Paragraph 95 references § 60.48c(g)(2).]

(3) [Omitted.]

(h) [Not Applicable]

(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.

(j) [Not Applicable. Sources in this source group are not subject to any periodic reporting under this section.]

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]



**SECTION E. Source Group Restrictions.****V. REPORTING REQUIREMENTS.****# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include: [This notification is a one-time requirement.]

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) [Not Applicable]

(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.

(4) [Not Applicable]

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 004 [25 Pa. Code §127.441]  
Operating permit terms and conditions.**

For informational purposes, the following are sections of § 60 Subpart Dc that do not apply to this source group.

- (a) § 60.42c - Standard for sulfur dioxide (SO<sub>2</sub>)
- (b) § 60.43c - Standard for particulate matter (PM)
- (c) § 60.44c - Compliance and performance test methods and procedures for sulfur dioxide
- (d) § 60.45c - Compliance and performance test methods and procedures for sulfur dioxide
- (e) § 60.46c - Emission monitoring for sulfur dioxide
- (f) § 60.47c - Emission monitoring for particulate matter

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.40c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Applicability and delegation of authority.**

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, 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 British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(b) - (i) [Not Applicable]

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

[40 CFR Part 60, Subpart Dc became applicable to Small Hot Oil Heaters in this Source Group as a result of the Consent Decree (Case: 3:18-cv-02526, Filed November 1, 2018) filed in the US District Court of the Northern District of Ohio. Per the Decree, these requirements will remain applicable, even after the termination of the Consent Decree.]

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.41c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

**SECTION E. Source Group Restrictions.**

[Below are select definitions for purposes of this permit.]

**ANNUAL CAPACITY FACTOR** means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

**HEAT INPUT** means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

**MAXIMUM DESIGN HEAT INPUT CAPACITY** means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

**NATURAL GAS** means:

- (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or
- (2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or
- (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

**PROCESS HEATER** means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

**STEAM GENERATING UNIT** means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

**STEAM GENERATING UNIT OPERATING DAY** means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

\*\*\* **Permit Shield in Effect.** \*\*\*



**SECTION E. Source Group Restrictions.**

Group Name: § 60 SUBPART JJJJ

Group Description: NSPS for stationary spark ignition internal combustion engines

Sources included in this group

ID	Name
103A	REFRIGERANT COMPRESSOR
103B	REFRIGERANT COMPRESSOR
114A	1480 BHP COMPRESSOR ENGINE
114B	1480 BHP COMPRESSOR ENGINE
114C	1480 BHP COMPRESSOR ENGINE
114D	1480 BHP COMPRESSOR ENGINE

**I. RESTRICTIONS.**

**Emission Restriction(s).**

# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]

**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

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

(a) - (d) Not applicable

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

[Compliance with NOx, CO, & VOC emission limits pursuant to PA 10-368A &B for the refrigerant compressors and pursuant to PA 10-368F for the compressor engines assures compliance with the emission limits of § 60.4233(e) & § 60 Subpart JJJJ's Table 1.]

(f) - (h) Not applicable.

**II. TESTING REQUIREMENTS.**

# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60 Subpart JJJJ Table 2]

**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

**Table 2 to Subpart JJJJ of Part 60.--**

Requirements for Performance Tests

[As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load]

Complying with the requirement to		You must		According to the following requirements	
1. Stationary SI internal combustion engine strating compliance according to §60.4244.	a. limit the concentration of NOX in the stationary SI combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A or ASTM Method D6522-00(2005)	(a) If using a control device, the sampling site must be located at the outlet of the control device.	



**SECTION E. Source Group Restrictions.**

ii. Determine the O<sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location; (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A or ASTM Method D6522-00(2005) a. (b) Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for NO<sub>x</sub> concentration.

iii. Determine the exhaust flowrate of the stationary internal combustion engine exhaust; (3) Method 2 or 19 of 40 CFR part 60.

iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and (4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 (incorporated by reference, see §60.17). (c) Measurements to determine moisture must be made at the same time as the measurement for NO<sub>x</sub> concentration.

v. Measure NO<sub>x</sub> at the exhaust of the stationary internal combustion engine. (5) Method 7E of 40 CFR part 60, appendix A, Method D6522-00(2005) a, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 (incorporated by reference, see §60.17). (d) Results of this test consist of the average of the three 1-hour runs.

b. limit the concentration of CO in the stationary internal combustion engine exhaust. i. Select the sampling port location and the number of traverse points; (1) Method 1 or 1A of 40 CFR part 60, Appendix A. (a) If using a control device, the sampling site must be located at the outlet of the control device.



**SECTION E. Source Group Restrictions.**

ii.	Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3Bb of 40 CFR part 60, appendix A or ASTM Method D6522-00(2005) a.	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for CO concentration.
iii.	Determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 19 of 40 CFR part 60.	
iv.	If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 (incorporated by reference, see §60.17).	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.

Table 2 to Subpart JJJJ of Part 60.--  
Requirements for Performance Tests--Contd.

[As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load]

Complying with the requirement to	You must	Using	According to the following requirements
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v.	Measure CO at the exhaust of the stationary internal combustion engine.	(5) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00(2005) a, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see	(d) Results of this test consist of the average of the three 1- hour runs.
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c. limit the	i. Select the	§60.17).		
con-	sampling port	(1) Method 1 or	(a) If using a	
centration of	location and	1A of 40 CFR	control de-	
VOC in the	the number of	part 60,	vice, the	
stationary SI	traverse	Appendix A.	sampling site	
internal com-	points;	must be lo-		
bustion en-		cated at the		
gine exhaust.		outlet of the		
		control de-		
		vice.		
ii. Determine	(2) Method 3,	(b) Measure-		
the O<sub>2</sub>	3A, or 3B	ments to de-		
con-	b of 40	termine O		
centration of	CFR part 60,	2		
the station-	appendix A or	con-		
ary internal	ASTM Method	centration		
combustion	D6522-	must be made		
engine ex-	00(2005)	at the same		
haust at the	a.	time as the		
sampling port		measurements		
location;		for VOC con-		
		centration.		
iii. Determine	(3) Method 2 or			
the exhaust	19 of 40 CFR			
flowrate of	part 60.			
the station-				
ary internal				
combustion				
engine ex-				
haust;				
iv. If	(4) Method 4 of	(c) Measure-		
necessary,	40 CFR part	ments to de-		
measure	60, appendix	termine		
moisture	A, Method 320	moisture must		
content of the	of 40 CFR part	be made at the		
stationary	63, appendix	same time as		
internal	A, or ASTM	the mea-		
combustion	D6348-03	surement for		
engine ex-	(incorporated	VOC con-		
haust at the	by reference,	centration.		
sampling port	see §60.17).			
location; and				
v. Measure VOC	(5) Methods 25A	(d) Results of		
at the exhaust	and 18 of 40	this test con-		
of the	CFR part 60,	sist of the		
stationary	appendix A,	average of the		
internal	Method 25A	three 1- hour		
combustion	with the use	or longer		
engine.	of a methane	runs.		
	cutter as de-			
	scribed in 40			
	CFR 1065.265,			
	Method 18 or			
	40 CFR part			
	60, appendix			
	A, c d			
	Method 320 of			

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		40 CFR part	
		63, appendix	
		A, or ASTM	
		D6348-03	
		(incorporated	
		by reference,	
		see §60.17).	

aASTM D6522-00 is incorporated by reference; see 40 CFR 60.17. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

bYou may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O<sub>2</sub> content of the exhaust gas as an alternative to EPA Method 3B.

cYou may use EPA Method 18 of 40 CFR part 60, appendix A, provided that you conduct an adequate presurvey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf>).

dYou may use ASTM D6420-99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic.

#### **# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]**

##### **Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

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

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

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

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

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

(d) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of this section:

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 1"

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912 × 10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

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

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

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 2"

Where:

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

Cd = Measured CO concentration in ppmv.

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

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

T = Time of test run, in hours.

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

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

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 3"

Where:

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

Cd = VOC concentration measured as propane in ppmv.

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

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

T = Time of test run, in hours.

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

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

(Formula omitted...refer to regulation for exact formula notation).



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"Equation 4"

Where:

RF<sub>i</sub> = Response factor of compound i when measured with EPA Method 25A.

CM<sub>i</sub> = Measured concentration of compound i in ppmv as carbon.

CA<sub>i</sub> = True concentration of compound i in ppmv as carbon.

(Formula omitted...refer to regulation for exact formula notation).

"Equation 5"

Where:

C<sub>icorr</sub> = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C<sub>imeas</sub> = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

(Formula omitted...refer to regulation for exact formula notation).

"Equation 6"

Where:

CP<sub>eq</sub> = Concentration of compound i in mg of propane equivalent per DSCM.

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

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

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

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

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

[§60.4245(a)(3) amended at 73 FR 59177, Oct. 8, 2008, effective Dec. 8, 2008]

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

**SECTION E. Source Group Restrictions.**

(b) Not applicable

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

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.

(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) - (ii) Not applicable

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

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



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

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

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

(i) Not applicable

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

(c) - (d) Not applicable

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

(f) Not applicable

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

(h) Not applicable

**VII. ADDITIONAL REQUIREMENTS.**

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60 Subpart JJJJ Table 3] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Table 3 to Subpart JJJJ of Part 60.--**

Applicability of General Provisions to Subpart JJJJ

[As stated in §60.4246, you must comply with the following applicable General Provisions]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1.....	General applicability of the General Provisions.....	Yes.....	
§60.2.....	Definitions.....	Yes.....	Additional terms defined in §60.4248.
§60.3.....	Units and abbreviations.....	Yes.....	
§60.4.....	Address.....	Yes.....	
§60.5.....	Determination of construction or modification.....	Yes.....	



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§60.6..... | Review of plans..... | Yes..... | |  
 §60.7..... | Notification and Record- | Yes..... | Except that §60.7 only |  
 | keeping..... | | applies as specified in |  
 | | | §60.4245. |  
 §60.8..... | Performance tests..... | Yes..... | Except that §60.8 only |  
		applies to owners and
		operators who are
		subject to performance
		testing in subpart
		JJJJ.
§60.9.....	Availability of	Yes.....
information.....		
§60.10.....	State Authority.....	Yes.....
§60.11.....	Compliance with	Yes.....
standards and		specified in subpart
maintenance re-		JJJJ.
quirements.....		
§60.12.....	Circumvention.....	Yes.....
§60.13.....	Monitoring	No.....
requirements.....		
§60.14.....	Modification.....	Yes.....
§60.15.....	Reconstruction.....	Yes.....
§60.16.....	Priority list.....	Yes.....
§60.17.....	Incorporations by	Yes.....
reference.....		
§60.18.....	General control device	No.....
requirements.....		
§60.19.....	General notification and	Yes.....
reporting		
requirements.....		

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**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]  
 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
 Am I subject to this subpart?**

[Subpart JJJJ added and reserved at 71 FR 38497, July 6, 2006; text added at 73 FR 3591, Jan. 18, 2008]

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) - (3) Not applicable

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

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

**SECTION E. Source Group Restrictions.**

(ii) - (iv) Not applicable

(5) Not applicable

(6) The provisions of § 60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b) Not applicable

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(d) - (f) Not applicable

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?**

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4236]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What is the deadline for importing or installing stationary SI ICE produced in the previous model year?**

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.

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

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

(d) In addition to the requirements specified in § §60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.

(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

**SECTION E. Source Group Restrictions.****# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4246]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What parts of the General Provisions apply to me?**

Table 3 to this subpart shows which parts of the General Provisions in § 60.1 through 60.19 apply to you.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4248]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105, 40 CFR 1054.107, and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first.

[Amended at 73 FR 59177, Oct. 8, 2008, effective Dec. 8, 2008]

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.

[Amended at 73 FR 59177, Oct. 8, 2008, effective Dec. 8, 2008]

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and carbon dioxide (CO<sub>2</sub>).

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary SI ICE used for peak shaving are not considered emergency stationary ICE. Stationary ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

**SECTION E. Source Group Restrictions.**

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Manufacturer has the meaning given in section 216(1) of the Clean Air Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

Model year means either: The calendar year in which the engine was originally produced, or the annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year, and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Pipeline-quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to June 12, 2006, with passive emission control technology for NO<sub>x</sub> (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to either: a gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal

**SECTION E. Source Group Restrictions.**

combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Stationary internal combustion engine test cell/stand means an engine test cell/stand, as defined in subpart P P P P P of this part, that test stationary ICE.

Stoichiometric means the theoretical air- to-fuel ratio required for complete combustion.

Subpart means 40 CFR part 60, subpart J J J J.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

Volatile organic compounds means volatile organic compounds as defined in 40 CFR 51.100(s).

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in §60.4231(d) or (e), as applicable.

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION E. Source Group Restrictions.**

Group Name: § 60 SUBPART NNN

Group Description: NSPS for VOC emissions from synthetic organic chemicals manufacturing industry (SOCMI)

Sources included in this group

ID	Name
110	GAS PROCESSING PLANT VENTING

**I. RESTRICTIONS.****Control Device Efficiency Restriction(s).****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.18]****Subpart A - General Provisions****General control device requirements.**

[Cited by § 60.662(b) for flares.]

## (a) INTRODUCTION.

(1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) [Not Applicable]

(b) FLARES. Paragraphs (c) through (f) apply to flares.

(c)

(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)

(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{max}$ , as determined by the following equation:

$$V_{max} = (XH_2 - K_1) * K_2$$

Where:

 $V_{max}$  = Maximum permitted velocity, m/sec. $K_1$  = Constant, 6.0 volume-percent hydrogen. $K_2$  = Constant, 3.9(m/sec)/volume-percent hydrogen.

$XH_2$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 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 being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

**SECTION E. Source Group Restrictions.**

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), 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).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

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

[For the equation and notations, refer to § 60.18 of Title 40 - Protection of Environment in [www.ecfr.gov](http://www.ecfr.gov)]

where:

HT = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas 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;

$K = (1.740 * 10^{-7}) (1/\text{ppm}) (\text{g mole}/\text{scm}) (\text{MJ}/\text{kcal})$

where the standard temperature for (g mole/scm) is 20 Degrees C

[For the equation and notations, refer to § 60.18 of Title 40 - Protection of Environment in [www.ecfr.gov](http://www.ecfr.gov)]

$C_i$  = Concentration of sample component  $i$  in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

$H_i$  = 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 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

**SECTION E. Source Group Restrictions.**

(5) The maximum permitted velocity,  $V_{max}$ , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

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

$V_{max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

HT = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity,  $V_{max}$ , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (HT)$$

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

8.706 = Constant

0.7084 = Constant

HT = The net heating value as determined in paragraph (f)(3).

(g) - (i) [Not Applicable]

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000; 73 FR 78209, Dec. 22, 2008]

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.662]**

**Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations Standards.**

Each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by §§60.8 and 60.664 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

(a) [Not Applicable]

(b) Combust the emissions in a flare that meets the requirements of § 60.18; or

(c) [Not Applicable]

**II. TESTING REQUIREMENTS.**

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.664]**

**Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations Test methods and procedures.**

(a) - (c) [Not Applicable]

(d) When a flare is used to seek to comply with §60.662(b), the flare shall comply with the requirements of § 60.18.

(e) - (h) [Not Applicable]

[55 FR 26942, June 29, 1990, as amended at 65 FR 61774, Oct. 17, 2000]

**III. MONITORING REQUIREMENTS.**

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.663]**

**Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations Monitoring of emissions and operations.**

(a) [Not Applicable]

**SECTION E. Source Group Restrictions.**

(b) The owner or operator of an affected facility that uses a flare to seek to comply with §60.662(b) shall install, calibrate, maintain and operate according to manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultra-violet beam sensor or thermocouple, at the pilot light to indicate the continuous presence of a flame.

(2) A flow indicator that provides a record of vent stream flow to the flare at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the flare and before being joined with any other vent stream.

(c) - (f) [Not Applicable]

[55 FR 26942, June 29, 1990, as amended at 65 FR 61774, Oct. 17, 2000]

**IV. RECORDKEEPING REQUIREMENTS.**

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.665]  
Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations  
Reporting and recordkeeping requirements.**

(a) [See V. Reporting Requirements for this source group]

(b) Each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under §60.8. [Omitted statements not applicable.]

(1) - (2) [Not Applicable]

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(b) through use of a smokeless flare, flare design (i.e., steam-assisted, air-assisted or nonassisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.

(4) [Not Applicable]

(c) [Not Applicable]

(d) Each owner or operator subject to the provisions of this subpart shall keep up to date, readily accessible continuous records of the flow indication specified under §60.663(b)(2), as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or has no flow rate. [Omitted reference to §§ 60.663(a)(2) and (c)(1), which are not applicable.]

(e) [Not Applicable]

(f) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the flare pilot flame monitoring specified under §60.663(b), as well as up-to-date, readily accessible records of all periods of operations in which the pilot flame is absent.

(g) - (j) [Not Applicable]

(k) - (m) [See V. Reporting Requirements for this source group]

(n) - (p) [Not Applicable]

[55 FR 26922, June 29, 1990; 55 FR 36932, Sept. 7, 1990, as amended at 60 FR 58237, Nov. 27, 1995; 65 FR 61778, Oct. 17, 2000; 65 FR 78279, Dec. 14, 2000; 79 FR 11251, Feb. 27, 2014]

**SECTION E. Source Group Restrictions.****V. REPORTING REQUIREMENTS.****# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.665]****Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations****Reporting and recordkeeping requirements.**

(a) Each owner or operator subject to §60.662 shall notify the Administrator of the specific provisions of §60.662 (§60.662 (a), (b), or (c)) with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by §60.7(a)(3). [See Paragraph 67 of the Consent Decree the compliance date.]

(k) Each owner and operator subject to the provisions of this subpart is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions.

(l) Each owner or operator that seeks to comply with the requirements of this subpart by complying with the requirements of §60.662 shall submit to the Administrator semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date. [Omitted reference to § 60.660(c)(4), (c)(5) and (c)(6), which are not applicable.]

(1) [Not Applicable]

(2) All periods recorded under §60.665(d) when the vent stream is diverted from the control device or has no flow rate.

(3) [Not Applicable]

(4) All periods recorded under §60.665(f) in which the pilot flame of the flare was absent.

(5) - (7) [Not Applicable]

(m) The requirements of §60.665(l) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with §60.665(l), provided that they comply with the requirements established by the State.

[55 FR 26922, June 29, 1990; 55 FR 36932, Sept. 7, 1990, as amended at 60 FR 58237, Nov. 27, 1995; 65 FR 61778, Oct. 17, 2000; 65 FR 78279, Dec. 14, 2000; 79 FR 11251, Feb. 27, 2014]

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For informational purposes, the following are sections of § 60 Subpart NNN that do not apply to this source group.

(a) § 60.666 - Reconstruction

(b) § 60.668 - Delegation of authority

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.660]****Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations****Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to each affected facility designated in paragraph (b) of this section that is part of a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c).

(b) The affected facility is any of the following for which construction, modification, or reconstruction commenced after December 30, 1983:

**SECTION E. Source Group Restrictions.**

- (1) Each distillation unit not discharging its vent stream into a recovery system.
- (2) Each combination of a distillation unit and the recovery system into which its vent stream is discharged.
- (3) Each combination of two or more distillation units and the common recovery system into which their vent streams are discharged.

(c) Exemptions from the provisions of paragraph (a) of this section are as follows:

(1) - (6) [Omitted. See comment (1) below.]

(d) Alternative means of compliance

(1) **OPTION TO COMPLY WITH PART 65.** Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D, to satisfy the requirements of §§60.662 through 60.665 and 60.668. The provisions of 40 CFR part 65 also satisfy the criteria of paragraphs (c)(4) and (6) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) **PART 60, SUBPART A.** Owners or operators who choose to comply with 40 CFR part 65, subpart D, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(2) do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

(3) **COMPLIANCE DATE.** [Omitted. See comment (2) below.]

(4) **INITIAL STARTUP NOTIFICATION.** [Omitted. See comment (2) below.]

**NOTE:** The intent of these standards is to minimize the emissions of VOC through the application of best demonstrated technology (BDT). The numerical emission limits in these standards are expressed in terms of total organic compounds (TOC), measured as TOC less methane and ethane. This emission limit reflects the performance of BDT.

[55 FR 26942, June 29, 2000, as amended at 65 FR 78279, Dec. 14, 2000; 79 FR 11251, Feb. 27, 2014]

[Comments:

(1) 40 CFR Part 60, Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations, became applicable to the Plant Process Flare (C108) as a result of the Consent Decree (Case: 3:18-cv-02526, Filed November 1, 2018) filed in the US District Court of the Northern District of Ohio. Per the Decree, these requirements will remain applicable, even after the termination of the Consent Decree.

(2) Provision on compliance with § 60.660(d) is in Paragraph 68 of the Consent Decree.]

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.661]  
Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations  
Definitions.**

As used in this subpart, all terms not defined here shall have the meaning given them in the Act and in subpart A of part 60, and the following terms shall have the specific meanings given them.

[Below are select definitions for purposes of this permit.]

**DISTILLATION OPERATION** means an operation separating one or more feed stream(s) into two or more exit stream(s), each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by

**SECTION E. Source Group Restrictions.**

the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

**DISTILLATION UNIT** means a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.

**FLOW INDICATOR** means a device which indicates whether gas flow is present in a vent stream.

**PROCESS UNIT** means equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one or more of the chemicals in §60.667. A process unit can operate independently if supplied with sufficient fuel or raw materials and sufficient product storage facilities.

**PRODUCT** means any compound or chemical listed in §60.667 that is produced for sale as a final product as that chemical, or for use in the production of other chemicals or compounds. By-products, co-products, and intermediates are considered to be products.

**RECOVERY DEVICE** means an individual unit of equipment, such as an absorber, carbon adsorber, or condenser, capable of and used for the purpose of recovering chemicals for use, reuse, or sale.

**RECOVERY SYSTEM** means an individual recovery device or series of such devices applied to the same vent stream.

**VENT STREAM** means any gas stream discharged directly from a distillation facility to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks including, but not limited to, pumps, compressors, and valves.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.667]**

**Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations**  
**Chemicals affected by subpart NNN.**

[Below are chemicals affected by Subpart NNN that are produced at MarkWest facilities, as indicated in the Notice of Violation and Finding of Violation (EPA-5-15-OH-21) included in the Consent Decree (Case: 3:18-cv-02526-JGC). For the complete list of chemicals, refer to § 60.667 of Title 40 - Protection of Environment in [www.ecfr.gov](http://www.ecfr.gov).]

**CHEMICAL NAME (CAS NO.)**

n-Butane (106-97-8)  
Butanes, mixed  
Isobutane (75-28-5)  
Propane (74-98-6)

[55 FR 26942, June 29, 1990, as amended at 60 FR 58237, 58238, Nov. 27, 1995]

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: § 60 SUBPART OOOO

Group Description: NSPS for crude oil &amp; natural gas production, transmission, &amp; distribution

**Sources included in this group**

ID	Name
107	PROCESS HEATERS
108	TRUCK AND RAILYARD LOADING
109	STORAGE TANK
110	GAS PROCESSING PLANT VENTING
112	ELECTRIC COMPRESSOR ENGINES
114A	1480 BHP COMPRESSOR ENGINE
114B	1480 BHP COMPRESSOR ENGINE
114C	1480 BHP COMPRESSOR ENGINE
114D	1480 BHP COMPRESSOR ENGINE
701	OTHER FUGITIVES

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Implementation of the requirements of this source group are as follows:

- (a) For Sources 107, 108, 109, & 110, all sections of § 60 Subpart OOOO included in this source group apply.
- (b) For Source 112, pursuant to PA 10-368D, and Sources 114A, 114B, 114C, and 114D, only the following sections of § 60 Subpart OOOO apply: §§ 60.5365, 60.5385, 60.5410, 60.5415, and 60.5420. Pursuant to § 60.5400, § 60 Subpart VVa does not apply to compressors.
- (c) For Source 701, only the following sections of § 60 Subpart OOOO apply: §§ 60.5385, 60.5415(c)(1 & 3), & 60.5420(b)(4)(i).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5421]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
What are my additional recordkeeping requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?**

- (a) You must comply with the requirements of paragraph (b) of this section in addition to the requirements of § 60.486a.
- (b) The following recordkeeping requirements apply to pressure relief devices subject to the requirements of § 60.5401(b)(1) of this subpart.
- (1) When each leak is detected as specified in § 60.5401(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, must be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.



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(2) When each leak is detected as specified in § 60.5401(b)(2), the following information must be recorded in a log and shall be kept for 2 years in a readily accessible location:

- (i) The instrument and operator identification numbers and the equipment identification number.
- (ii) The date the leak was detected and the dates of each attempt to repair the leak.
- (iii) Repair methods applied in each attempt to repair the leak.
- (iv) "Above 500 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 500 ppm or greater.
- (v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- (vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
- (vii) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
- (viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.
- (ix) The date of successful repair of the leak.
- (x) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of § 60.482-4a(a). The designation of equipment subject to the provisions of § 60.482-4a(a) must be signed by the owner or operator.

**V. REPORTING REQUIREMENTS.****# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5420]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution**  
**What are my notification, reporting, and recordkeeping requirements?**

(a) You must submit the notifications required in § 60.7(a)(1) and (4), and according to paragraphs (a)(1) and (2) of this section, if you own or operate one or more of the affected facilities specified in § 60.5365 that was constructed, modified, or reconstructed during the reporting period.

(1) - (2) [Not Applicable]

(b) Reporting requirements. You must submit annual reports containing the information specified in paragraphs (b)(1) through (6) of this section to the Administrator and performance test reports as specified in paragraph (b)(7) of this section. The initial annual report is due 30 days after the end of the initial compliance period as determined according to § 60.5410. Subsequent annual reports are due on the same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (b)(1) through (6) of this section. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

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

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

(ii) An identification of each affected facility being included in the annual report.

(iii) Beginning and ending dates of the reporting period.

(iv) A certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based

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on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(2) - (3) [Not Applicable]

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

(i) The cumulative number of hours of operation or the number of months since initial startup, October 15, 2012, or since the previous reciprocating compressor rod packing replacement, whichever is later.

(ii) Records of deviations specified in paragraph (c)(3)(iii) of this section that occurred during the reporting period.

(5) - (7) [Not Applicable]

(c) Recordkeeping requirements. You must maintain the records identified as specified in § 60.7(f) and in paragraphs (c)(1) through (10) of this section. All records must be maintained for at least 5 years.

(1) - (2) [Not Applicable]

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

(i) Records of the cumulative number of hours of operation or number of months since initial startup or October 15, 2012, or the previous replacement of the reciprocating compressor rod packing, whichever is later.

(ii) Records of the date and time of each reciprocating compressor rod packing replacement.

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

(4) - (11) [Not Applicable]

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5422]  
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
What are my additional reporting requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?**

(a) You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of § 60.487a(a), (b), (c)(2)(i) through (iv), and (c)(2)(vii) through (viii).

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

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

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

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

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.****# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5360]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****What is the purpose of this subpart?**

This subpart establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO<sub>2</sub>) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5365]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****Am I subject to this subpart?**

You are subject to the applicable provisions of this subpart if you are the owner or operator of one or more of the onshore affected facilities listed in paragraphs (a) through (g) of this section for which you commence construction, modification or reconstruction after August 23, 2011.

(a) - (b) [Not Applicable]

(c) Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

(d) - (e) [Not Applicable]

(f) The group of all equipment, except compressors, within a process unit is an affected facility.

(1) Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(2) Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§ 60.5400, 60.5401, 60.5402, 60.5421, and 60.5422 of this subpart if it is located at an onshore natural gas processing plant. Equipment not located at the onshore natural gas processing plant site is exempt from the provisions of §§ 60.5400, 60.5401, 60.5402, 60.5421, and 60.5422 of this subpart.

(3) [Not Applicable]

(g) - (h) [Not Applicable]

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5370]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****When must I comply with this subpart?**

(a) You must be in compliance with the standards of this subpart no later than October 15, 2012 or upon startup, whichever is later.

(b) The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 CFR 60.8(c) do not apply to this subpart.

(c) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5385]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****What standards apply to reciprocating compressor affected facilities?**

You must comply with the standards in paragraphs (a) through (d) of this section for each reciprocating compressor affected facility.

(a) You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section.

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- (1) Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
- (2) Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the rod packing has not yet been replaced.
- (b) You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5410.
- (c) You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5415.
- (d) You must perform the required notification, recordkeeping, and reporting as required by § 60.5420.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5400]  
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
What equipment leak standards apply to affected facilities at an onshore natural gas processing plant?**

This section applies to the group of all equipment, except compressors, within a process unit.

- (a) You must comply with the requirements of §§ 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in § 60.5401.
- (b) You may elect to comply with the requirements of §§ 60.483-1a and 60.483-2a, as an alternative.
- (c) You may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart according to the requirements of § 60.5402 of this subpart.
- (d) You must comply with the provisions of § 60.485a of this part except as provided in paragraph (f) of this section.
- (e) You must comply with the provisions of §§ 60.486a and 60.487a of this part except as provided in §§ 60.5401, 60.5421, and 60.5422 of this part.
- (f) You must use the following provision instead of §60.485a(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-93, E168-92, or E260-96 (incorporated by reference as specified in §60.17) must be used.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5401]  
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
What are the exceptions to the equipment leak standards for affected facilities at onshore natural gas processing plants?**

- (a) You may comply with the following exceptions to the provisions of § 60.5400(a) and (b).
- (b)
- (1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in § 60.485a(b) except as provided in § 60.5400(c) and in paragraph (b)(4) of this section, and § 60.482-4a(a) through (c) of subpart VVa.
- (2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.
- (3)
- (i) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after it is

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detected, except as provided in § 60.482-9a.

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

(4)

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

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

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

(d) - (e) [Not Applicable]

(f) An owner or operator may use the following provisions instead of § 60.485a(e):

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

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

(g) An owner or operator may use the following provisions instead of § 60.485a(b)(2): A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(8). Divide these readings by the initial calibration values for each scale and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5402]**

**Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution**

**What are the alternative emission limitations for equipment leaks from onshore natural gas processing plants?**

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

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

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

(d) The Administrator will treat applications under this section according to the following criteria, except in cases where the Administrator concludes that other criteria are appropriate:

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

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(2) If the applicant is an owner or operator of an affected facility, the applicant must commit in writing to operate and maintain the alternative means so as to achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under the design, equipment, work practice or operational standard.

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5410]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
How do I demonstrate initial compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?**

You must determine initial compliance with the standards for each affected facility using the requirements in paragraphs (a) through (g) of this section. The initial compliance period begins on October 15, 2012 or upon initial startup, whichever is later, and ends no later than one year after the initial startup date for your affected facility or no later than one year after October 15, 2012. The initial compliance period may be less than one full year.

(a) - (b) [Not Applicable]

(c) To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (c)(1) through (4) of this section.

(1) During the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.

(2) You must submit the notifications required in 60.7(a)(1), (3), and (4).

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

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

(d) - (e) [Not Applicable]

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

(g) [Not Applicable]

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5415]****Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my stationary reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my affected facilities at onshore natural gas processing plants?**

What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my storage vessel or centrifugal compressor affected facility?

(a) - (b) [Not Applicable]

(c) For each reciprocating compressor affected facility, you must demonstrate continuous compliance according to paragraphs (c)(1) through (3) of this section.

(1) You must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

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

(3) You must replace the reciprocating compressor rod packing before the total number of hours of operation reaches

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26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

(d) - (e) [Not Applicable]

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

(g) [Not Applicable]

**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5425]  
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
What part of the General Provisions apply to me?**

Table 3 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5430]  
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution  
What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, in subpart A or subpart VVa of part 60; and the following terms shall have the specific meanings given them.

Acid gas means a gas stream of hydrogen sulfide (H<sub>2</sub>S) and carbon dioxide (CO<sub>2</sub>) that has been separated from sour natural gas by a sweetening unit.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Alaskan North Slope means the approximately 69,000 square-mile area extending from the Brooks Range to the Arctic Ocean.

API Gravity means the weight per unit volume of hydrocarbon liquids as measured by a system recommended by the American Petroleum Institute (API) and is expressed in degrees.

Bleed rate means the rate in standard cubic feet per hour at which natural gas is continuously vented (bleeds) from a pneumatic controller.

Centrifugal compressor means any machine for raising the pressure of a natural gas by drawing in low pressure natural gas and discharging significantly higher pressure natural gas by means of mechanical rotating vanes or impellers. Screw, sliding vane, and liquid ring compressors are not centrifugal compressors for the purposes of this subpart.

City gate means the delivery point at which natural gas is transferred from a transmission pipeline to the local gas utility.

Completion combustion device means any ignition device, installed horizontally or vertically, used in exploration and production operations to combust otherwise vented emissions from completions.

Compressor station means any permanent combination of one or more compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage.

Continuous bleed means a continuous flow of pneumatic supply natural gas to the process control device (e.g., level control, temperature control, pressure control) where the supply gas pressure is modulated by the process condition, and then flows to the valve controller where the signal is compared with the process set-point to adjust gas pressure in the valve actuator.

Custody transfer means the transfer of natural gas after processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation.

Dehydrator means a device in which an absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber).

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Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

- (3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Delineation well means a well drilled in order to determine the boundary of a field or producing reservoir.

Equipment means each pump, pressure relief device, open-ended valve or line, valve, and flange or other connector that is in VOC service or in wet gas service, and any device or system required by this subpart.

Field gas means feedstock gas entering the natural gas processing plant.

Field gas gathering means the system used transport field gas from a field to the main pipeline in the area.

Flare means a thermal oxidation system using an open (without enclosure) flame. Completion combustion devices as defined in this section are not considered flares.

Flow line means a pipeline used to transport oil and/or gas from the well to a processing facility, a mainline pipeline, re-injection, or other useful purpose.

Flowback means the process of allowing fluids to flow from a natural gas well following a treatment, either in preparation for a subsequent phase of treatment or in preparation for cleanup and returning the well to production. The flowback period begins when material introduced into the well during the treatment returns to the surface immediately following hydraulic fracturing or refracturing. The flowback period ends with either well shut in or when the well is producing continuously to the flow line or to a storage vessel for collection, whichever occurs first.

Gas processing plant process unit means equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

Gas well or natural gas well means an onshore well drilled principally for production of natural gas.

Hydraulic fracturing or refracturing means the process of directing pressurized fluids containing any combination of water, proppant, and any added chemicals to penetrate tight formations, such as shale or coal formations, that subsequently require high rate, extended flowback to expel fracture fluids and solids during completions.

Hydraulic refracturing means conducting a subsequent hydraulic fracturing operation at a well that has previously undergone a hydraulic fracturing operation.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in § 60.485a(e) or § 60.5401(g)(2) of this part.

In wet gas service means that a compressor or piece of equipment contains or contacts the field gas before the extraction step at a gas processing plant process unit.

Intermittent/snap-action pneumatic controller means a pneumatic controller that vents non-continuously.

Liquefied natural gas unit means a unit used to cool natural gas to the point at which it is condensed into a liquid which is colorless, odorless, non-corrosive and non-toxic.

Low pressure gas well means a well with reservoir pressure and vertical well depth such that 0.445 times the reservoir pressure (in psia) minus 0.038 times the vertical well depth (in feet) minus 67.578 psia is less than the flow line pressure



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at the sales meter.

Natural gas-driven pneumatic controller means a pneumatic controller powered by pressurized natural gas.

Natural gas liquids means the hydrocarbons, such as ethane, propane, butane, and pentane that are extracted from field gas.

Natural gas processing plant (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. A Joule-Thompson valve, a dew point depression valve, or an isolated or standalone Joule-Thompson skid is not a natural gas processing plant.

Natural gas transmission means the pipelines used for the long distance transport of natural gas (excluding processing). Specific equipment used in natural gas transmission includes the land, mains, valves, meters, boosters, regulators, storage vessels, dehydrators, compressors, and their driving units and appurtenances, and equipment used for transporting gas from a production plant, delivery point of purchased gas, gathering system, storage area, or other wholesale source of gas to one or more distribution area(s).

Nonfractionating plant means any gas plant that does not fractionate mixed natural gas liquids into natural gas products.

Non-natural gas-driven pneumatic controller means an instrument that is actuated using other sources of power than pressurized natural gas; examples include solar, electric, and instrument air.

Onshore means all facilities except those that are located in the territorial seas or on the outer continental shelf.

Pneumatic controller means an automated instrument used for maintaining a process condition such as liquid level, pressure, delta-pressure and temperature.

Pressure vessel means a storage vessel that is used to store liquids or gases and is designed not to vent to the atmosphere as a result of compression of the vapor headspace in the pressure vessel during filling of the pressure vessel to its design capacity.

Process unit means components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

Reciprocating compressor means a piece of equipment that increases the pressure of a process gas by positive displacement, employing linear movement of the driveshaft.

Reciprocating compressor rod packing means a series of flexible rings in machined metal cups that fit around the reciprocating compressor piston rod to create a seal limiting the amount of compressed natural gas that escapes to the atmosphere.

Reduced emissions completion means a well completion following fracturing or refracturing where gas flowback that is otherwise vented is captured, cleaned, and routed to the flow line or collection system, re-injected into the well or another well, used as an on-site fuel source, or used for other useful purpose that a purchased fuel or raw material would serve, with no direct release to the atmosphere.

Reduced sulfur compounds means H<sub>2</sub>S, carbonyl sulfide (COS), and carbon disulfide (CS<sub>2</sub>).

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

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(ii) The delegation of authority to such representatives is approved in advance by the permitting authority;

(2) For a partnership or sole proprietorship: A general partner or the proprietor, respectively;

(3) For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected facilities:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions under title IV of the Clean Air Act or the regulations promulgated thereunder are concerned; or

(ii) The designated representative for any other purposes under part 60.

Routed to a process or route to a process means the emissions are conveyed via a closed vent system to any enclosed portion of a process unit where the emissions are predominantly recycled and/or consumed in the same manner as a material that fulfills the same function in the process and/or transformed by chemical reaction into materials that are not regulated materials and/or incorporated into a product; and/or recovered.

Salable quality gas means natural gas that meets the composition, moisture, or other limits set by the purchaser of the natural gas, regardless of whether such gas is sold.

Storage vessel means a unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of liquids or other materials. The following are not considered storage vessels:

(1) Vessels that are skid-mounted or permanently attached to something that is mobile (such as trucks, railcars, barges or ships), and are intended to be located at a site for less than 180 consecutive days. If you do not keep or are not able to produce records, as required by § 60.5420(c)(5)(iv), showing that the vessel has been located at a site for less than 180 consecutive days, the vessel described herein is considered to be a storage vessel since the original vessel was first located at the site.

(2) Process vessels such as surge control vessels, bottoms receivers or knockout vessels.

(3) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere.

Sulfur production rate means the rate of liquid sulfur accumulation from the sulfur recovery unit.

Sulfur recovery unit means a process device that recovers element sulfur from acid gas.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Sweetening unit means a process device that removes hydrogen sulfide and/or carbon dioxide from the sour natural gas stream.

Total Reduced Sulfur (TRS) means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide as measured by Method 16 of appendix A to part 60 of this chapter.

Total SO<sub>2</sub> equivalents means the sum of volumetric or mass concentrations of the sulfur compounds obtained by adding the quantity existing as SO<sub>2</sub> to the quantity of SO<sub>2</sub> that would be obtained if all reduced sulfur compounds were converted to SO<sub>2</sub> (ppmv or kg/dscm (lb/dscf)).

Underground storage vessel means a storage vessel stored below ground.

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Well means an oil or gas well, a hole drilled for the purpose of producing oil or gas, or a well into which fluids are injected.

Well completion means the process that allows for the flowback of petroleum or natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

Well completion operation means any well completion with hydraulic fracturing or refracturing occurring at a gas well affected facility.

Well site means one or more areas that are directly disturbed during the drilling and subsequent operation of, or affected by, production facilities directly associated with any oil well, gas well, or injection well and its associated well pad.

Wellhead means the piping, casing, tubing and connected valves protruding above the earth's surface for an oil and/or natural gas well. The wellhead ends where the flow line connects to a wellhead valve. The wellhead does not include other equipment at the well site except for any conveyance through which gas is vented to the atmosphere.

Wildcat well means a well outside known fields or the first well drilled in an oil or gas field where no other oil and gas production exists.

**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION E. Source Group Restrictions.**

Group Name: § 60 SUBPART VVA

Group Description: NSPS for equipment leaks of VOC in the synthetic organic chemicals manufacturing industry (S

Sources included in this group

ID	Name
107	PROCESS HEATERS
108	TRUCK AND RAILYARD LOADING
109	STORAGE TANK
110	GAS PROCESSING PLANT VENTING

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-10a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Standards: Closed vent systems and control devices.**

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of § 60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (ii) of this section:

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- (i) Conduct an initial inspection according to the procedures in § 60.485a(b); and
- (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
- (2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:
  - (i) Conduct an initial inspection according to the procedures in § 60.485a(b); and
  - (ii) Conduct annual inspections according to the procedures in § 60.485a(b).
- (g) Leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.
  - (1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
  - (2) Repair shall be completed no later than 15 calendar days after the leak is detected.
- (h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown 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 complete by the end of the next process unit shutdown.
- (i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.
- (j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (2) of this section:
  - (1) 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 paragraphs (f)(1)(i) or (f)(2) of this section; and
  - (2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
- (k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (3) of this section:
  - (1) 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
  - (2) The process unit within which the closed vent system is located becomes an affected facility through §§ 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
  - (3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.
- (l) The owner or operator shall record the information specified in paragraphs (l)(1) through (5) of this section.
  - (1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
  - (2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
  - (3) For each inspection during which a leak is detected, a record of the information specified in § 60.486a(c).
  - (4) For each inspection conducted in accordance with § 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
  - (5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-11a]**  
**Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006**  
**Standards: Connectors in gas/vapor service and in light liquid service.**

[EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, §60.482-11a was stayed until further notice.]

- (a) The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments,

**SECTION E. Source Group Restrictions.**

reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) Except as allowed in § 60.482-1a(c), § 60.482-10a, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) The connectors shall be monitored to detect leaks by the method specified in § 60.485a(b) and, as applicable, § 60.485a(c).

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

(3) The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent of leaking connectors within the total monitored connectors.

(C) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraphs (b)(3)(i) through (iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using the following equation:  
$$\%CL = CL / Ct * 100$$

Where:

$\%CL$  = Percent of leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (iii) of this section.

$CL$  = Number of connectors measured at 500 ppm or greater, by the method specified in § 60.485a(b).

$Ct$  = Total number of monitored connectors in the process unit or affected facility.

(d) When a leak is detected pursuant to paragraphs (a) and (b) of this section, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

(e) Any connector that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section if:

(1) The owner or operator of the connector demonstrates that the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (a) and (b) of this section; and

(2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (d) of this section if a leak is detected.

(f) Inaccessible, ceramic, or ceramic-lined connectors. (1) Any connector that is inaccessible or that is ceramic or ceramic-lined

(e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this

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section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§ 63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (f)(1)(i) through (vi) of this section, as applicable:

- (i) Buried;
  - (ii) Insulated in a manner that prevents access to the connector by a monitor probe;
  - (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;
  - (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;
  - (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or
  - (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.
- (2) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.
- (g) Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of paragraph (f) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-1a]****Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Standards: General.**

- (a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1a through 60.482-10a or § 60.480a(e) for all equipment within 180 days of initial startup.
  - (b) Compliance with §§ 60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485a.
  - (c) Not Applicable
  - (d) Equipment that is in vacuum service is excluded from the requirements of §§ 60.482-2a through 60.482-10a if it is identified as required in § 60.486a(e)(5).
- [All other conditions are not applicable]

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-2a]****Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Standards: Pumps in light liquid service.**

- (a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b), except as provided in § 60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in § 60.482-1a(c) and paragraphs (d), (e), and (f) of this section.
- (2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in § 60.482-1a(f).
- (b)(1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of this section.
  - (i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;
  - (ii) 2,000 ppm or greater for all other pumps.
- (2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable.
  - (i) Monitor the pump within 5 days as specified in § 60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) of this section.
  - (ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) of this section or by eliminating the visual indications of liquids dripping.

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- (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.
- (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable.
- (i) Tightening the packing gland nuts;
- (ii) Ensuring that the seal flush is operating at design pressure and temperature.
- (d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met.
- (1) Each dual mechanical seal system is:
- (i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
- (ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482-10a; or
- (iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
- (2) The barrier fluid system is in heavy liquid service or is not in VOC service.
- (3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
- (4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.
- (ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section prior to the next required inspection.
- (A) Monitor the pump within 5 days as specified in § 60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.
- (B) Designate the visual indications of liquids dripping as a leak.
- (5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm.
- (ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
- (iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected.
- (6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section.
- (ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.
- (iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.
- (e) Any pump that is designated, as described in § 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:
- (1) Has no externally actuated shaft penetrating the pump housing;
- (2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485a(c); and
- (3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.
- (f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of § 60.482-10a, it is exempt from paragraphs (a) through (e) of this section.
- (g) Any pump that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:
- (1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and
- (2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.
- (h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.



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**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-4a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Standards: Pressure relief devices in gas/vapor service.**

- (a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485a(c).
- (b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482-9a.
- (2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485a(c).
- (c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482-10a is exempted from the requirements of paragraphs (a) and (b) of this section.
- (d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.
- (2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482-9a.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-5a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Standards: Sampling connection systems.**

- (a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in § 60.482-1a(c) and paragraph (c) of this section.
- (b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section.
- (1) Gases displaced during filling of the sample container are not required to be collected or captured.
- (2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.
- (3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.
- (4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.
- (i) Return the purged process fluid directly to the process line.
- (ii) Collect and recycle the purged process fluid to a process.
- (iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of § 60.482-10a.
- (iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:
- (A) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;
- (B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;
- (C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;
- (D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347; or
- (E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.
- (c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-6a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Standards: Open-ended valves or lines.**

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- (a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482-1a(c) and paragraphs (d) and (e) of this section.
- (2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.
- (b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
- (c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times.
- (d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b), and (c) of this section.
- (e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-7a]****Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards: Valves in gas/vapor service and in light liquid service.**

- (a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, § 60.482-1a(c) and (f), and §§ 60.483-1a and 60.483-2a.
- (2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, § 60.482-1a(c), and §§ 60.483-1a and 60.483-2a.
- (i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.
- (ii) If the existing valves in the process unit are monitored in accordance with § 60.483-1a or § 60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in § 60.483-2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.
- (b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.
- (c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.
- (ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.
- (2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
- (d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482-9a.
- (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (e) First attempts at repair include, but are not limited to, the following best practices where practicable:
- (1) Tightening of bonnet bolts;
  - (2) Replacement of bonnet bolts;
  - (3) Tightening of packing gland nuts;
  - (4) Injection of lubricant into lubricated packing.
- (f) Any valve that is designated, as described in § 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) of this section if the valve:
- (1) Has no external actuating mechanism in contact with the process fluid,
  - (2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 60.485a(c), and
  - (3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.
- (g) Any valve that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the

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requirements of paragraph (a) of this section if:

- (1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section, and
  - (2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
- (h) Any valve that is designated, as described in § 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:
- (1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
  - (2) The process unit within which the valve is located either:
    - (i) Becomes an affected facility through § 60.14 or § 60.15 and was constructed on or before January 5, 1981; or
    - (ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.
  - (3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-8a]**

**Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.**

- (a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures:
- (1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485a(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.
  - (2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.
- (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482-9a.
- (2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (d) First attempts at repair include, but are not limited to, the best practices described under §§ 60.482-2a(c)(2) and 60.482-7a(e).

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-9a]**

**Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards: Delay of repair.**

- (a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.
- (b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.
- (c) Delay of repair for valves and connectors will be allowed if:
- (1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
  - (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482-10a.
- (d) Delay of repair for pumps will be allowed if:
- (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
  - (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
- (e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
- (f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

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**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.483-1a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Alternative standards for valves - allowable percentage of valves leaking.**

- (a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.
- (b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:
- (1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in § 60.487a(d).
  - (2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.
  - (3) If a valve leak is detected, it shall be repaired in accordance with § 60.482-7a(d) and (e).
- (c) Performance tests shall be conducted in the following manner:
- (1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in § 60.485a(b).
  - (2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.
  - (3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.
- (d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in § 60.485a(h).

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.483-2a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Alternative standards for valves - skip period leak detection and repair.**

- (a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.
- (2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in § 60.487(d)a.
- (b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in § 60.482-7a.
- (2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
  - (3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
  - (4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in § 60.482-7a but can again elect to use this section.
  - (5) The percent of valves leaking shall be determined as described in § 60.485a(h).
  - (6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.
  - (7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with § 60.482-7a(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.485a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Test methods and procedures.**

- (a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).
- (b) The owner or operator shall determine compliance with the standards in §§ 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows:
- (1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7 of this part. The following calibration gases shall be used:
    - (i) Zero air (less than 10 ppm of hydrocarbon in air); and

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(ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures

specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

(c) The owner or operator shall determine compliance with the no-detectable-emission standards in §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 of appendix A-7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Not applicable.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see § 60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 of appendix A-7 of this part shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{\max} = K1 + K2 HT$$

Where:

$V_{\max}$  = Maximum permitted velocity, m/sec (ft/sec).

HT = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K1 = 8.706 m/sec (metric units) = 28.56 ft/sec (English units).

K2 = 0.7084 m<sup>4</sup>/(MJ-sec) (metric units) = 0.087 ft<sup>4</sup>/(Btu-sec) (English units).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

Where:

K = Conversion constant, 1.740×10<sup>-7</sup> (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10<sup>-6</sup> [(g-mole)(Btu)/(ppm-

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scfkcal]]

(English units).

$C_i$  = Concentration of sample component "i," ppm

$H_i$  = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole.

(5) Method 18 of appendix A-6 of this part or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 ppmv) and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference-see § 60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference-see § 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D of appendix A-7 of this part, as appropriate, shall be used to determine the actual exit velocity of a

flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with § 60.483-1a or § 60.483-2a as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$$\%VL = (VL / VT) * 100$$

Where:

%VL = Percent leaking valves.

VL = Number of valves found leaking.

VT = The sum of the total number of valves monitored.

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with § 60.482-7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.486a]**

**Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals**

**Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006**

**Recordkeeping requirements.**

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of this section for each monitoring event required by §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a.

(i) Monitoring instrument identification.

(ii) Operator identification.

(iii) Equipment identification.

(iv) Date of monitoring.

(v) Instrument reading.

(b) When each leak is detected as specified in §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482-7a(c) and no leak has been detected during those 2 months.

(3) The identification on a connector may be removed after it has been monitored as specified in § 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring.

(4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number, except when indications of

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liquids dripping from a pump are designated as a leak.

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

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

(4) Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

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

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

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

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

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

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in § 60.482-10a shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in § 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.

(e) The following information pertaining to all equipment subject to the requirements in §§ 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§ 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f).

(ii) The designation of equipment as subject to the requirements of § 60.482-2a(e), § 60.482-3a(i), or § 60.482-7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

(3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482-4a.

(4)(i) The dates of each compliance test as required in §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with § 60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.

(8) Records of the information specified in paragraphs (e)(8)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and § 60.485a(b).

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of this part.

(v) Results of each calibration drift assessment required by § 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If an owner or operator makes their own calibration gas, a description of the procedure used.

(9) The connector monitoring schedule for each process unit as specified in § 60.482-11a(b)(3)(v).

(10) Records of each release from a pressure relief device subject to § 60.482-4a.

(f) The following information pertaining to all valves subject to the requirements of § 60.482-7a(g) and (h), all pumps subject to the requirements of § 60.482-2a(g), and all connectors subject to the requirements of § 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

**SECTION E. Source Group Restrictions.**

- (2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.
- (g) The following information shall be recorded for valves complying with § 60.483-2a:
- (1) A schedule of monitoring.
  - (2) The percent of valves found leaking during each monitoring period.
- (h) The following information shall be recorded in a log that is kept in a readily accessible location:
- (1) Design criterion required in §§ 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and
  - (2) Any changes to this criterion and the reasons for the changes.
- (i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in § 60.480a(d):
- (1) An analysis demonstrating the design capacity of the affected facility,
  - (2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and
  - (3) An analysis demonstrating that equipment is not in VOC service.
- (j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.
- (k) The provisions of § 60.7(b) and (d) do not apply to affected facilities subject to this subpart.

**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.487a]  
Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006  
Reporting requirements.**

- (a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date.
- (b) The initial semiannual report to the Administrator shall include the following information:
- (1) Process unit identification.
  - (2) Number of valves subject to the requirements of § 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of § 60.482-7a(f).
  - (3) Number of pumps subject to the requirements of § 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of § 60.482-2a(e) and those pumps complying with § 60.482-2a(f).
  - (4) Number of compressors subject to the requirements of § 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of § 60.482-3a(i) and those compressors complying with § 60.482-3a(h).
  - (5) Number of connectors subject to the requirements of § 60.482-11a.
- (c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486a:
- (1) Process unit identification.
  - (2) For each month during the semiannual reporting period,
    - (i) Number of valves for which leaks were detected as described in § 60.482-7a(b) or § 60.483-2a,
    - (ii) Number of valves for which leaks were not repaired as required in § 60.482-7a(d)(1),
    - (iii) Number of pumps for which leaks were detected as described in § 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),
    - (iv) Number of pumps for which leaks were not repaired as required in § 60.482-2a(c)(1) and (d)(6),
    - (v) Number of compressors for which leaks were detected as described in § 60.482-3a(f),
    - (vi) Number of compressors for which leaks were not repaired as required in § 60.482-3a(g)(1),
    - (vii) Number of connectors for which leaks were detected as described in § 60.482-11a(b)
    - (viii) Number of connectors for which leaks were not repaired as required in § 60.482-11a(d), and
    - (ix)-(x) [Reserved]
  - (xi) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.
- (3) Dates of process unit shutdowns which occurred within the semiannual reporting period.
- (4) Revisions to items reported according to paragraph (b) of this section if changes have occurred since the initial report or subsequent revisions to the initial report.
- (d) An owner or operator electing to comply with the provisions of §§ 60.483-1a or 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.
- (e) An owner or operator shall report the results of all performance tests in accordance with § 60.8 of the General Provisions. The provisions of § 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.



**SECTION E. Source Group Restrictions.**

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a state under section 111(c) of the CAA, approves reporting requirements or an alternative means of compliance surveillance adopted by such state. In that event, affected sources within the state will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the state.

**\*\*\* Permit Shield in Effect. \*\*\***



**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Title V facility.

**SECTION G. Emission Restriction Summary.**

Source Id	Source Descriptor			
103A	REFRIGERANT COMPRESSOR			
	Emission Limit			Pollutant
	0.500 GRAMS/HP-Hr	per engine		CO
	0.930 Lbs/Hr	per engine		CO
	8.110 Tons/Yr	for the total of the 2 refrigerant compressors		CO
	0.068 Lbs/Hr	per engine		Formaldehyde
	0.300 GRAMS/HP-Hr	per engine		NOX
	500.000 PPMV	as SO <sub>2</sub> , dry basis		SOX
	0.040 gr/DRY FT <sup>3</sup>			TSP
	0.200 GRAMS/HP-Hr	per engine		VOC
	0.370 Lbs/Hr	per engine		VOC
	3.240 Tons/Yr	for the total of the 2 refrigerant compressors		VOC
103B	REFRIGERANT COMPRESSOR			
	Emission Limit			Pollutant
	0.500 GRAMS/HP-Hr	per engine		CO
	0.930 Lbs/Hr	per engine		CO
	8.110 Tons/Yr	for the total of the 2 refrigerant compressors		CO
	0.068 Lbs/Hr	per engine		Formaldehyde
	0.300 GRAMS/HP-Hr	per engine		NOX
	500.000 PPMV	as SO <sub>2</sub> , dry basis		SOX
	0.040 gr/DRY FT <sup>3</sup>			TSP
	0.200 GRAMS/HP-Hr	per engine		VOC
	0.370 Lbs/Hr	per engine		VOC
	3.240 Tons/Yr	for the total of the 2 refrigerant compressors		VOC
107	PROCESS HEATERS			
	Emission Limit			Pollutant
	0.040 Lbs/MMBTU	7-H-1768 Deethanizer II HMO Heater		CO
	0.050 Lbs/MMBTU	2-H-802 Depropanizer I HMO Heater		CO
	0.051 Lbs/MMBTU	6-H-851 Fractionator HMO Heater		CO
	0.078 Lbs/MMBTU	6-H-852 Fractionator HMO Heater		CO
	9.300 Tons/Yr	2-H-802 Depropanizer I HMO Heater, 12-month rolling total		CO
	10.640 Tons/Yr	7-H-1768 Deethanizer II HMO Heater, 12-month rolling total		CO
	22.140 Tons/Yr	6-H-852 Fractionator HMO Heater, 12-month rolling total		CO
	26.760 Tons/Yr	6-H-851 Fractionator HMO Heater, 12-month rolling total		CO
	0.035 Lbs/MMBTU	6-H-851 Fractionator HMO Heater		NOX
	0.040 Lbs/MMBTU	6-H-852 Fractionator HMO Heater		NOX
	0.040 Lbs/MMBTU	7-H-1768 Deethanizer II HMO Heater		NOX
	0.050 Lbs/MMBTU	2-H-802 Depropanizer I HMO Heater		NOX
	9.300 Tons/Yr	2-H-802 Depropanizer I HMO Heater, 12-month rolling total		NOX
	10.640 Tons/Yr	7-H-1768 Deethanizer II HMO Heater, 12-month rolling total		NOX

**SECTION G. Emission Restriction Summary.**

Source Id	Source Descriptor		
11.300	Tons/Yr	6-H-852 Fractionator HMO Heater	NOX
18.270	Tons/Yr	6-H-851 Fractionator HMO Heater, 12-month rolling total	NOX
4.000	Lbs/MMBTU	of heat input.	SOX
0.400	Lbs/MMBTU	of heat input.	TSP
111	OLYMPIAN EMERGENCY GENERATOR		
<b>Emission Limit</b>		<b>Pollutant</b>	
500.000	PPMV	as SO <sub>2</sub> , dry basis	SOX
0.040	gr/DRY FT <sup>3</sup>		TSP
114A	1480 BHP COMPRESSOR ENGINE		
<b>Emission Limit</b>		<b>Pollutant</b>	
0.250	GRAMS/HP-Hr		CO
0.010	GRAMS/HP-Hr		Formaldehyde
0.200	GRAMS/HP-Hr		NOX
500.000	PPMV	as SO <sub>2</sub> , dry basis	SOX
0.040	gr/DRY FT <sup>3</sup>		TSP
0.160	GRAMS/HP-Hr		VOC
114B	1480 BHP COMPRESSOR ENGINE		
<b>Emission Limit</b>		<b>Pollutant</b>	
0.250	GRAMS/HP-Hr		CO
0.010	GRAMS/HP-Hr		Formaldehyde
0.200	GRAMS/HP-Hr		NOX
500.000	PPMV	as SO <sub>2</sub> , dry basis	SOX
0.040	gr/DRY FT <sup>3</sup>		TSP
0.160	GRAMS/HP-Hr		VOC
114C	1480 BHP COMPRESSOR ENGINE		
<b>Emission Limit</b>		<b>Pollutant</b>	
0.250	GRAMS/HP-Hr		CO
0.010	GRAMS/HP-Hr		Formaldehyde
0.200	GRAMS/HP-Hr		NOX
500.000	PPMV	as SO <sub>2</sub> , dry basis	SOX
0.040	gr/DRY FT <sup>3</sup>		TSP
0.160	GRAMS/HP-Hr		VOC
114D	1480 BHP COMPRESSOR ENGINE		
<b>Emission Limit</b>		<b>Pollutant</b>	
0.250	GRAMS/HP-Hr		CO
0.010	GRAMS/HP-Hr		Formaldehyde
0.200	GRAMS/HP-Hr		NOX
500.000	PPMV	as SO <sub>2</sub> , dry basis	SOX



**SECTION G. Emission Restriction Summary.**

Source Id	Source Description		
0.040	gr/DRY FT3	TSP	
0.160	GRAMS/HP-Hr	VOC	

**Site Emission Restriction Summary**

Emission Limit	Pollutant
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**SECTION H. Miscellaneous.**

(a) The Capacity/Throughput numbers listed in Section A, the Site Inventory List, and provided in Section D of this permit for individual sources are for informational purposes only and are not to be considered enforceable limits. Enforceable limits are listed in the Restrictions section in Section D (i.e., for each source) and in Section E (i.e., for sources included in the source group). The emission limitations contained in Section G of this permit are also for informational purposes only and are not to be considered enforceable limits.

(b) Source specifications and details (as of November 2018)

(b.1) Source 107 comprises of the following process heaters:

- (1) H-5602 Bluestone I Deethanization Heater, 9.9 mmbtu/hr
- (2) H-5801 Bluestone I Regen Heater, 3 mmbtu/hr
- (3) 2-H-101 Bluestone II Regen Heater, 5.38 mmbtu/hr
- (4) 2-H-102 Deethanization I Regen Heater, 2.6 mmbtu/hr
- (5) 2-H-801 Bluestone II HMO Heater, 18.52 mmbtu/hr
- (6) 2-H-802 Depropanizer I HMO Heater, 42.4 mmbtu/hr
- (7) 3-H-741 Bluestone III Regen Heater, 6.84 mmbtu/hr
- (8) 3-H-781 Bluestone III HMO Heater, 13.68 mmbtu/hr
- (9) 6-H-851 Fractionation HMO Heater, 119.2 mmbtu/hr
- (10) 6-H-852 Fractionation HMO Heater, 64.5 mmbtu/hr
- (11) 7-H-1768 Deethanizer II HMO Heater, 60.7 mmbtu/hr
- (12) 7-H-1775 Deethanizer II Regen Heater, 4.53 mmbtu/hr

(b.2) Source 108 is emissions escaping during loading of products (natural gasoline) onto trucks or railcars for transport. This source also include emissions due to combustion of residual propane and butane/gasoling (B-G) mix in empty rail cars prior repair.

(b.3) Source 109 is a 10,000-bbl natural gasoline storage tank.

(b.4) Source 110 represents fugitive emissions from components (i.e., connectors, flanges, pump seals, compressors, PSVs (pressure safety valves), & valves) from natural gas processing plants at the facility. In total, there are 3 demethanizers (i.e., cryogenic processing), 3 deethanizers, 1 depropanizer, 1 debutanizer (i.e., fractionator), & 1 butane splitter in operation.

- (1) Bluestone 1: 1 demethanizer, 1 deethanizer. (i.e., 1 depropanizer not in use)
- (2) Bluestone 2: 1 demethanizer, 1 deethanizer. (i.e., 1 depropanizer not in use)
- (3) Bluestone 3: 1 demethanizer
- (4) Deethanizer 3: 1 deethanizer
- (5) Fractionation: 1 depropanizer, 1 debutanizer, 1 butane splitter

(b.5) Source 112 consists of electric compressor engines.

Unlike the natural gas-fired compressor engines, Source 112 does not emit natural gas combustion gases. However, as part of a natural gas processing facility, Source 112 is subject to § 40 CFR 60 Subpart OOOO and therefore included as a permitted source. There are 28 electric compressor engines (i.e., most to drive small pumps).

(b.6) Source 601 represents fugitive emissions from maintenance blowdowns for equipment/engines.

(b.7) Source 801 represents fugitive emissions from pig launchers and receivers (i.e., for cleaning & inspecting pipelines).

(b.8) Control C108 - used throughout the site including Sources 108 (i.e., truck loading only), 109, 110, 114, and for emergency use. This control/flare is referred internally as 'D702 Flare'.

(b.9) Control C110 - temporary flare brought in by a third party; used to combust residual propane & butane/gasoline (B-G) mixture in empty rail cars prior repair.

(c) The following sources are insignificant and there will be no requirements for these sources:

(c.1) There are 5 pressurized tanks numbered 9401, 9402, 9403, 9404, 9405

- (1) Tanks contain either propane or BG mix (butane gas mix)
- (2) Specs/dimensions:
  - Tank capacity: 60,000 gallons
  - Overall tank length: 90'

**SECTION H. Miscellaneous.**

- Tank diameters: 10', 11' 7/8", 11' 1/8", 11' 0"

(3) Operating conditions:

- Maximum allowable working pressure (MAWP) is 250 psi at 125°F.
- Operating pressure range for BG tanks is 10-150 psi
- Operating pressure range for propane tanks is 80-150 psi

(d) Definitions

- (d.1) Ozone season - from May through September



\*\*\*\*\* End of Report \*\*\*\*\*

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