



**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY PROGRAM**

**TITLE V/STATE OPERATING PERMIT**

Issue Date:	January 4, 2018	Effective Date:	January 4, 2022
Revision Date:	January 4, 2022	Expiration Date:	December 31, 2022
Revision Type:	Modification		

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

**TITLE V Permit No: 42-00004**

Federal Tax Id - Plant Code: 22-2318612-2

**Owner Information**

Name: AMER REF GROUP INC  
Mailing Address: 77 N KENDALL AVE  
BRADFORD, PA 16701-1726

**Plant Information**

Plant: AMER REF GROUP/BRADFORD  
Location: 42 McKean County 42001 Bradford City  
SIC Code: 2911 Manufacturing - Petroleum Refining

**Responsible Official**

Name: ROBIN AUGUSTINE  
Title: VICE PRESIDENT OPERATIONS  
Phone: (814) 368 - 1418 Email: raugustine@amref.com

**Permit Contact Person**

Name: JASON GOODLING  
Title: ENVIRONMENTAL DIRECTOR  
Phone: (814) 368 - 1223 Email: jgoodling@amref.com

[Signature] \_\_\_\_\_  
ERIC A. GUSTAFSON, NORTHWEST REGION AIR PROGRAM MANAGER



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Note: These same sub-sections are repeated for each source!

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**SECTION A. Site Inventory List**

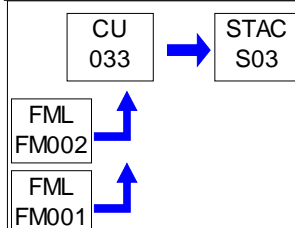
Source ID	Source Name	Capacity/Throughput	Fuel/Material
033	BOILER 3	99.000 MMBTU/HR	
		99.000 MCF/HR	Natural Gas
		76.200 MCF/HR	Refinery Gas
034	BOILER 4	99.000 MMBTU/HR	
		99.000 MCF/HR	Natural Gas
		76.200 MCF/HR	Refinery Gas
035	BOILER #6	172.540 MMBTU/HR	
		164.324 MCF/HR	Natural Gas
		92.510 MCF/HR	Refinery Gas
041	CRUDE UNIT HEATER	33.400 MMBTU/HR	
		250.000 Gal/HR	#4 Oil
		33.400 MCF/HR	Natural Gas
		25.700 MCF/HR	Refinery Gas
		250.000 Gal/HR	#6 Oil
		250.000 Gal/HR	#5 OIL & WAXES
043	PLATFORMER HEATER	40.000 MMBTU/HR	
		30.800 MCF/HR	Refinery Gas
		40.000 MCF/HR	Natural Gas
044	NMP EXTRACTION HEATER	14.300 MMBTU/HR	
		11.000 MCF/HR	Refinery Gas
		14.300 MCF/HR	Natural Gas
045	NMP RAFFINATE HEATER	8.800 MMBTU/HR	
		8.800 MCF/HR	Natural Gas
		6.800 MCF/HR	Refinery Gas
046	UNIFINER HEATER	14.000 MMBTU/HR	
		10.800 MCF/HR	Refinery Gas
		14.000 MCF/HR	Natural Gas
047	ROSE UNIT HEATER	3.000 MMBTU/HR	
		3.000 MCF/HR	Natural Gas
		2.300 MCF/HR	Refinery Gas
049	ISOMER UNIT HEATER	0.834 MMBTU/HR	
		834.000 CF/HR	Natural Gas
		642.000 CF/HR	Refinery Gas
050	H-501 HYDROTREATER HEATER	7.590 MCF/HR	Natural Gas
		5.840 MCF/HR	Refinery Gas
051	H-510 HYDROTREATER STRIPPER HEATER	9.600 MCF/HR	Natural Gas
		7.400 MCF/HR	Refinery Gas
1001	HYDROTREATER UNIT	187.500 BBL/HR	DIESEL / LUBE OILS
150	PLATFORMER REFORMER REACTOR VESSEL		
202A	PRE-KB LARGE SUBPART CC GRP 1 TKS (>4% HAP) CONTROL W FLARE	1,250.000 BBL/HR	
206	EQUIPMENT LEAKS OF VOC IN PETROLEUM REFINERIES		

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput		Fuel/Material
212	PRE-KB LARGE IFR SUBPART CC GROUP 1 TANKS (>4% HAP)	1,250.000	BBL/HR	
212A	SUBPART KB & CC LARGE GROUP 1 & 2 IFR TANKS W/VP > 0.5 PSIA	1,250.000	BBL/HR	
213B	PRE-KB LARGE GROUP 2 IFR TANKS W/VP >1.5 PSIA, HAP <4%	1,250.000	BBL/HR	
216	GASOLINE LOADING RACK (BOTTOM)	110.000	BBL/HR	GASOLINE
300A	EMERGENCY GENERATOR ENGINES (40 KW J DEERE & 125 KW CUMMINS)	13.500	Gal/HR	
302	OIL/WATER SEPARATOR (CRUDE UNIT)	10.000	Gal/HR	VOC
303	OIL/WATER SEPARATORS (3)	8.000	Gal/HR	VOC
306	LARGE POST 7/23/84 FIXED ROOF TANKS WITH VP < 0.5 PSIA	1,250.000	BBL/HR	ANY W/ V.P. < 0.5 PSIA
		1,250.000	BBL/HR	ANY W/ V.P. < 0.5 PSIA
307	FIXED ROOF GRP 2 SUBPART KB & CC TANKS NOT LISTED ELSEWHERE	1,250.000	BBL/HR	ANY W/ V.P. <=0.75 PSIA
		1,250.000	BBL/HR	ANY W/ V.P. <=0.75 PSIA
310	GASOLINE STORAGE TANK	48.000	BBL/HR	GASOLINE
311	MEDIUM SIZED SUBPART KB GROUP 2 PRODUCT TANKS VP <1.5 PSIA	1,250.000	BBL/HR	ANY W/VP <1.5 PSIA
312	SUBPART KB & CC LARGE GRP 1 & 2 IFR TKS W/VP >0.5 PSIA & GP2	1,250.000	BBL/HR	ANY GROUP 1 PRODUCT
314	EMERGENCY GENERATOR 2,923 BHP	160.100	Gal/HR	Diesel Fuel
400	COLD CLEANING MACHINES (6)			
401	EMERGENCY DIESEL FIRE WATER PUMPS (3)	15.000	Gal/HR	Diesel Fuel
402	GROUNDWATER WASTEWATER TREATMENT PLANT			
419	PRE-KB LARGE SUBPART CC GROUP 2 (<4% HAP)	1,250.000	BBL/HR	
		1,250.000	BBL/HR	
420	PRE KB RSR GRP1 TK (0.75 PSIA<VP<1.5 PSIA, HAP > 4%) W FLARE	1,250.000	BBL/HR	
		1,250.000	BBL/HR	
C1001	LO-CAT ABSORBER UNIT			
C1001A	LO-CAT CHEMICAL OXIDIZER UNIT			
FL01	FOSTER BROOK FLARE	120.000	MMCF/HR	Refinery Gas
FL301	REFINERY FLARE	120.000	MMCF/HR	Refinery Gas
FM001	NATURAL GAS			
FM002	REFINERY FUEL GAS			
FM003	#4 FUEL OIL			
FM005	#5 FUEL OIL			
FM006	#6 FUEL OIL			
FM066	WAXES			
FML8	DIESEL FUEL			
S03	#3 BOILER STACK			
S035	BOILER #6 STACK			
S04	#4 BOILER STACK			
S049	STACK - ISOMER UNIT HEATER			
S050	STACK-HYDROTREATER HEATER			

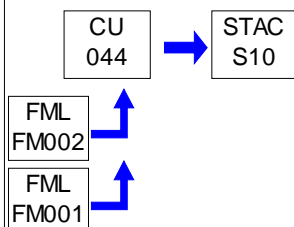
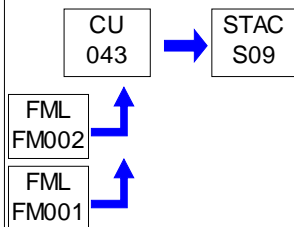
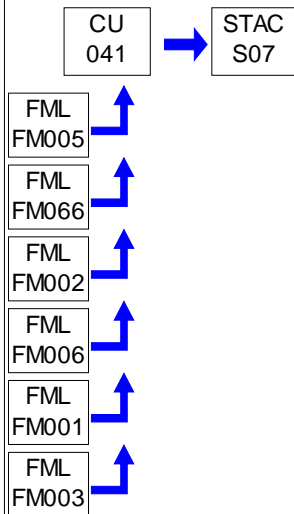
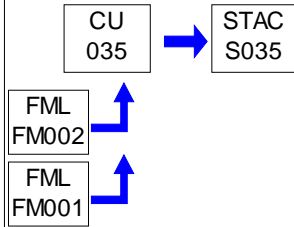
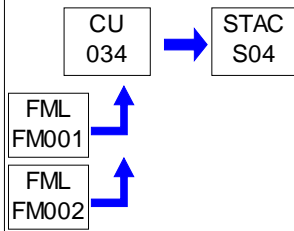
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
S051	STACK-HYDROTREATER STRIPPER HEATER		
S07	CRUDE UNIT HEATER STACK		
S09	PLATFORMER HEATER STACK		
S10	NMP EXTRACTION HEATER STACK		
S1001	LO-CAT OXIDIZER STACK		
S11	NMP RAFFINATE HEATER STACK		
S17	UNIFINER HEATER STACK		
S18	ROSE UNIT HEATER STACK		
S300A	EMERGENCY GENERATOR ENGINE STACKS (40 KW & 125 KW)		
S314	EMERGENCY GENERATOR STACK		
S401	EMERGENCY DIESEL FIRE WATER PUMP STACKS		
Z01	FUGITIVE EMISSIONS (FOSTER BROOK FLARE - FL01)		
Z212A	FUGITIVE EMISSIONS - SOURCE 212A		
Z301	FLARE		
Z302	FUGITIVE EMISSIONS-WWT		
Z303	FUGITIVE EMISSIONS-WWT		
Z306	FUGITIVES-SOURCE 306		
Z307	FUGITIVES-SOURCE 307		
Z310	FUGITIVES-SOURCE 310		
Z311	FUGITIVES-SOURCE 311		
Z312	FUGITIVES - SOURCE 312		
Z402	FUGITIVE EMISSIONS FROM SOURCE ID: 402		
Z419	FUGITIVES - SOURCE 419		
Z420	FUGITIVES - SOURCE 420		
Z63	FUGITIVE (TANK SOURCE GROUP 213B)		
Z86	FUGITIVE (TANK SOURCE GROUP 212)		

**PERMIT MAPS**

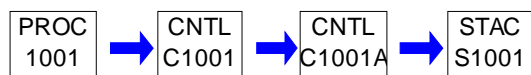
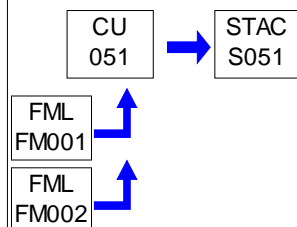
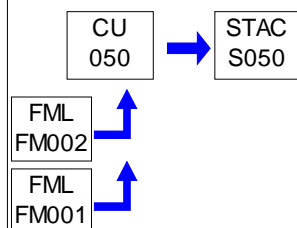
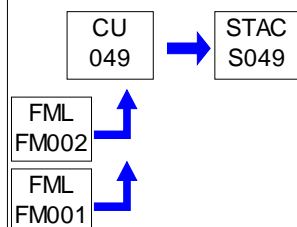
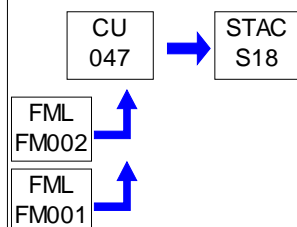
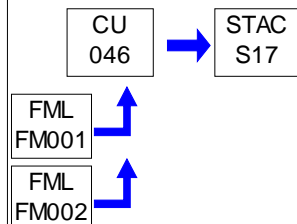
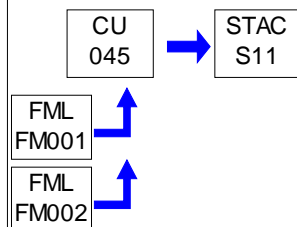


## PERMIT MAPS





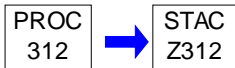
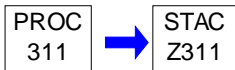
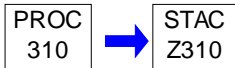
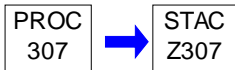
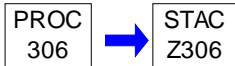
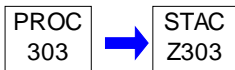
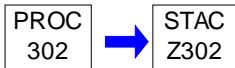
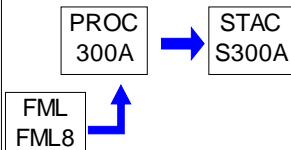
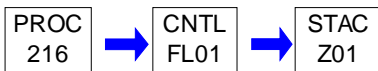
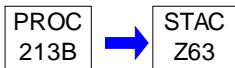
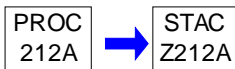
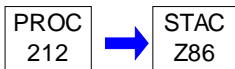
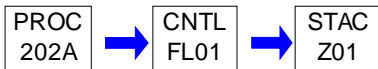
## PERMIT MAPS

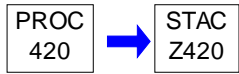
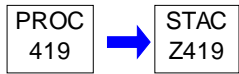
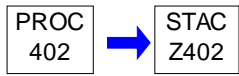
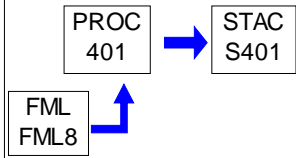
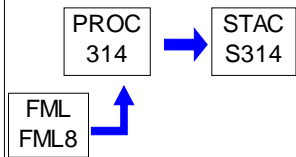






## PERMIT MAPS



**PERMIT MAPS**

**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 & 127.704(b)]****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. The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.

(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

**SECTION B. General Title V Requirements**

the Department.

(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.

**SECTION B. General Title V Requirements****#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 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].

**SECTION B. General Title V Requirements****#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 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). The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

(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.

**SECTION B. General Title V Requirements**

(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).

(e) The permittee shall pay an annual operating permit maintenance fee according to the following fee schedule established in 25 Pa. Code § 127.704(d) on or before December 31 of each year for the next calendar year.

- (1) Eight thousand dollars (\$8,000) for calendar years 2021—2025.
- (2) Ten thousand dollars (\$10,000) for calendar years 2026—2030.
- (3) Twelve thousand five hundred dollars (\$12,500) for the calendar years beginning with 2031.

**#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.

**SECTION B. General Title V Requirements**

(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.

(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



**SECTION B. General Title V Requirements**

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, 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:

Enforcement & Compliance Assurance Division  
Air, RCRA and Toxics Branch  
Air Section  
1650 Arch Street, 3ED21  
Philadelphia, PA 19103

The Title V compliance certification shall be emailed to EPA at R3\_APD\_Permits@epa.gov.

(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 § 127.513]****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

**SECTION B. General Title V Requirements**

the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department in accordance with the submission requirements specified in Section B, Condition #022 of this permit. The Title V compliance certification shall be emailed to EPA at R3\_APD\_Permits@epa.gov.

**#025 [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.

(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.

**#026 [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.

**SECTION B. General Title V Requirements****#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)
- (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.

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(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.

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Section B, Condition #026 of this 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**

The permittee may not 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) Sources and classes of sources other than those identified above, 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.

**# 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:

**SECTION C. Site Level Requirements**

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) Not applicable
- (3) When the emission results from sources specified in 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions).
- (4) Not applicable

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

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

**III. MONITORING REQUIREMENTS.****# 007 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- a) The permittee shall conduct daily monitoring of the facility property, while the facility is operating, to observe for the presence of fugitive emissions and visible emissions being emitted into the outdoor atmosphere.
- b) If the observer conducting the daily monitoring is not trained or qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department, the following conditions shall apply:
  - 1) Observer shall report any observed fugitive emissions or non-steam visible emissions to the Vice President of Compliance or his designated representative.
  - 2) Within 4 hours of detecting visible emissions from any source other than a flare, a person qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department shall determine the plume opacity.
  - 3) If the deadline established in paragraph 2) above cannot be met, the Vice President of Compliance or his designated representative shall notify the Department within 4 hours of detecting visible emissions. Notification is to be made to the Air Quality District Supervisor located in the Warren District Office. The phone number to call is 814-723-0958. If the Air Quality District Supervisor is not available, a voice mail message is to be left on the answering system.

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.427]****Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted. Continuous monitoring.**

- (a) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, except as allowed in paragraph (a)(5) of this section.
  - (1) Does not apply.
  - (2) Does not apply
  - (3) Does not apply
  - (4) Where a flare is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, shall be installed in proximity to the pilot light to indicate the presence of a flame.

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(5) Does not apply

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in paragraphs (a)(1) and (a)(2) of this section, or to go below the operating parameter value for the parameter described in paragraph (a)(3) of this section, and established using the procedures in 63.425(b). In cases where an alternative parameter pursuant to paragraph (a)(5) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as specified above, shall constitute a violation of the emission standard in 63.422(b).

(c) [Does not apply]

**# 009 [25 Pa. Code §123.43]**

**Measuring techniques**

Visible emissions may be measured using either of the following:

- (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.

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

**# 011 [25 Pa. Code §129.95]**

**Recordkeeping**

- a) The owner and operator of a major NO<sub>x</sub> emitting facility or a major VOCs emitting facility shall keep records to demonstrate compliance with 25 PA Code 129.91 -- 129.94.
- b) The records shall provide sufficient data and calculations to clearly demonstrate that the requirements of 25 PA Code 129.91 -- 129.94 are met.
- c) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
- d) The records shall be retained for at least 2 years and shall be made available to the Department on request.
- e) Not applicable

**# 012 [25 Pa. Code §135.5]**

**Recordkeeping**

The permittee shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with 25 PA Code 135.3 and 135.21 (relating to reporting; and emission statements). These 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 informed by indirect means.

**SECTION C. Site Level Requirements****# 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Reporting and recordkeeping requirements.**

(a) - (h) [See Reporting Requirements in Section C Condition #017 of this Permit]

(i) Recordkeeping. Each owner or operator of a source subject to this subpart shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in paragraphs (i)(1) through (12) of this section. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, flash drive, floppy disk, magnetic tape, or microfiche.

(1) Each owner or operator subject to the storage vessel provisions in §63.646 shall keep the records specified in §63.123 of subpart G except as specified in paragraphs (i)(1)(i) through (iv) of this section. Each owner or operator subject to the storage vessel provisions in §63.660 shall keep records as specified in paragraphs (i)(1)(v) and (vi) of this section.

(i) Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.

(ii) All references to §63.122 in §63.123 of subpart G shall be replaced with §63.655(e).

(iii) All references to §63.150 in §63.123 of subpart G of this part shall be replaced with §63.652.

(iv) If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(v) Each owner or operator of a Group 1 storage vessel subject to the provisions in §63.660 shall keep records as specified in §63.1065 or §63.998, as applicable.

(vi) Each owner or operator of a Group 2 storage vessel shall keep the records specified in §63.1065(a) of subpart WW. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(2) Each owner or operator required to report the results of performance tests under paragraphs (f) and (g)(7) of this section shall retain a record of all reported results as well as a complete test report, as described in paragraph (f)(2)(ii) of this section for each emission point tested.

(3) Each owner or operator required to continuously monitor operating parameters under §63.644 for miscellaneous process vents or under §§63.652 and 63.653 for emission points in an emissions average shall keep the records specified in paragraphs (i)(3)(i) through (i)(3)(v) of this section unless an alternative recordkeeping system has been requested and approved under paragraph (h) of this section.

(i) The monitoring system shall measure data values at least once every hour.

(ii) The owner or operator shall record either:

(A) Each measured data value; or

(B) Block average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(iii) Daily average values of each continuously monitored parameter shall be calculated for each operating day and retained for 5 years except as specified in paragraph (i)(3)(iv) of this section.



**SECTION C. Site Level Requirements**

- (A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per day if operation is not continuous.
- (B) The operating day shall be the period defined in the Notification of Compliance Status report. It may be from midnight to midnight or another daily period.
- (iv) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status report, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that day. For these days, the records required in paragraph (i)(3)(ii) of this section shall also be retained for 5 years.
- (v) Monitoring data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.
- (4) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and either directly to the atmosphere or to a control device that does not comply with the requirements in §63.643(a), the owner or operator shall keep a record of the information specified in either paragraph (i)(4)(i) or (ii) of this section, as applicable.
- (i) The owner or operator shall maintain records of periods when flow was detected in the bypass line, including the date and time and the duration of the flow in the bypass line. For each flow event, the owner or operator shall maintain records sufficient to determine whether or not the detected flow included flow of a Group 1 miscellaneous process vent stream requiring control. For periods when the Group 1 miscellaneous process vent stream requiring control is diverted from the control device and released either directly to the atmosphere or to a control device that does not comply with the requirements in §63.643(a), the owner or operator shall include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates.
- (ii) Where a seal mechanism is used to comply with §63.644(c)(2), hourly records of flow are not required. In such cases, the owner or operator shall record the date that the monthly visual inspection of the seals or closure mechanisms is completed. The owner or operator shall also record the occurrence of all periods when the seal or closure mechanism is broken, the bypass line valve position has changed or the key for a lock-and-key type lock has been checked out. The owner or operator shall include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting mass emissions of organic HAP from the Group 1 miscellaneous process vent stream requiring control that bypassed the control device or records sufficient to demonstrate that there was no flow of a Group 1 miscellaneous process vent stream requiring control during the period.
- (5) The owner or operator of a heat exchange system subject to this subpart shall comply with the recordkeeping requirements in paragraphs (i)(5)(i) through (v) of this section and retain these records for 5 years.
- (6) All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.
- (7) Each owner or operator subject to the delayed coking unit decoking operations provisions in §63.657 must maintain records specified in paragraphs (i)(7)(i) through (iii) of this section.
- (i) The average pressure or temperature, as applicable, for the 5-minute period prior to venting to the atmosphere, draining, or deheading the coke drum for each cooling cycle for each coke drum.
- (ii) If complying with the 60-cycle rolling average, each 60-cycle rolling average pressure or temperature, as applicable, considering all coke drum venting events in the existing affected source.
- (iii) For double-quench cooling cycles:

**SECTION C. Site Level Requirements**

- (A) The date, time and duration of each pre-vent draining event.
- (B) The pressure or temperature of the coke drum vessel, as applicable, for the 15 minute period prior to the pre-vent draining.
- (C) The drain water temperature at 1-minute intervals from the start of pre-vent draining to the complete closure of the drain valve.
- (8) For fenceline monitoring systems subject to §63.658, each owner or operator shall keep the records specified in paragraphs (i)(8)(i) through (x) of this section on an ongoing basis.
- (i) Coordinates of all passive monitors, including replicate samplers and field blanks, and if applicable, the meteorological station. The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. The coordinates shall be in decimal degrees with at least five decimal places.
- (ii) The start and stop times and dates for each sample, as well as the tube identifying information.
- (iii) Sampling period average temperature and barometric pressure measurements.
- (iv) For each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part, the sampler location of and the concentration of the outlier and the evidence used to conclude that the result is an outlier.
- (v) For samples that will be adjusted for a background, the location of and the concentration measured simultaneously by the background sampler, and the perimeter samplers to which it applies.
- (vi) Individual sample results, the calculated delta c for benzene for each sampling period and the two samples used to determine it, whether background correction was used, and the annual average delta c calculated after each sampling period.
- (vii) Method detection limit for each sample, including co-located samples and blanks.
- (viii) Documentation of corrective action taken each time the action level was exceeded.
- (ix) Other records as required by Methods 325A and 325B of appendix A of this part.
- (x) If a near-field source correction is used as provided in §63.658(i), records of hourly meteorological data, including temperature, barometric pressure, wind speed and wind direction, calculated daily unit vector wind direction and daily sigma theta, and other records specified in the site-specific monitoring plan.
- (9) For each flare subject to §63.670, each owner or operator shall keep the records specified in paragraphs (i)(9)(i) through (xi) of this section up-to-date and readily accessible, as applicable.
- (i) Retain records of the output of the monitoring device used to detect the presence of a pilot flame as required in §63.670(b) for a minimum of 2 years. Retain records of each 15-minute block during which there was at least one minute that no pilot flame is present when regulated material is routed to a flare for a minimum of 5 years.
- (ii) Retain records of daily visible emissions observations or video surveillance images required in §63.670(h) as specified in the paragraphs (i)(9)(ii)(A) through (C), as applicable, for a minimum of 3 years.
- (A) If visible emissions observations are performed using Method 22 at 40 CFR part 60, appendix A-7, the record must identify whether the visible emissions observation was performed, the results of each observation, total duration of observed visible emissions, and whether it was a 5-minute or 2-hour observation. If the owner or operator performs visible emissions observations more than one time during a day, the record must also identify the date and time of day each visible emissions observation was performed.
- (B) If video surveillance camera is used, the record must include all video surveillance images recorded, with time and date

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stamps.

(C) For each 2 hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours, the record must include the date and time of the 2 hour period and an estimate of the cumulative number of minutes in the 2 hour period for which emissions were visible.

(iii) The 15-minute block average cumulative flows for flare vent gas and, if applicable, total steam, perimeter assist air, and pre-mix assist air specified to be monitored under §63.670(i), along with the date and time interval for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and pre-mix assist air, retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, retain records of the 15-minute block average temperature, pressure and molecular weight of the flare vent gas or assist gas stream for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

(iv) The flare vent gas compositions specified to be monitored under §63.670(j). Retain records of individual component concentrations from each compositional analyses for a minimum of 2 years. If NHVvg analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years.

(v) Each 15-minute block average operating parameter calculated following the methods specified in §63.670(k) through (n), as applicable.

(vi) [Reserved]

(vii) All periods during which operating values are outside of the applicable operating limits specified in §63.670(d) through (f) when regulated material is being routed to the flare.

(viii) All periods during which the owner or operator does not perform flare monitoring according to the procedures in §63.670(g) through (j).

(ix) Records of periods when there is flow of vent gas to the flare, but when there is no flow of regulated material to the flare, including the start and stop time and dates of periods of no regulated material flow.

(x) Records when the flow of vent gas exceeds the smokeless capacity of the flare, including start and stop time and dates of the flaring event.

(xi) Records of the root cause analysis and corrective action analysis conducted as required in §63.670(o)(3), including an identification of the affected facility, the date and duration of the event, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under §63.670(o)(5)(i).

(xii) For any corrective action analysis for which implementation of corrective actions are required in §63.670(o)(5), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(10) [Reserved]

(11) For each pressure relief device subject to the pressure release management work practice standards in §63.648(j)(3), the owner or operator shall keep the records specified in paragraphs (i)(11)(i) through (iii) of this section.

(i) Records of the prevention measures implemented as required in §63.648(j)(3)(ii), if applicable.

(ii) Records of the number of releases during each calendar year and the number of those releases for which the root cause was determined to be a force majeure event. Keep these records for the current calendar year and the past five calendar years.

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(iii) For each release to the atmosphere, the owner or operator shall keep the records specified in paragraphs (i)(11)(iii)(A) through (D) of this section.

(A) The start and end time and date of each pressure release to the atmosphere.

(B) Records of any data, assumptions, and calculations used to estimate of the mass quantity of each organic HAP released during the event.

(C) Records of the root cause analysis and corrective action analysis conducted as required in §63.648(j)(3)(iii), including an identification of the affected facility, the date and duration of the event, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under §63.648(j)(7)(i).

(D) For any corrective action analysis for which implementation of corrective actions are required in §63.648(j)(7), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(12) For each maintenance vent opening subject to the requirements in §63.643(c), the owner or operator shall keep the applicable records specified in (i)(12)(i) through (v) of this section.

(i) The owner or operator shall maintain standard site procedures used to deinventory equipment for safety purposes (e.g., hot work or vessel entry procedures) to document the procedures used to meet the requirements in §63.643(c). The current copy of the procedures shall be retained and available on-site at all times. Previous versions of the standard site procedures, if applicable, shall be retained for five years.

(ii) If complying with the requirements of §63.643(c)(1)(i) and the lower explosive limit at the time of the vessel opening exceeds 10 percent, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and the lower explosive limit at the time of the vessel opening.

(iii) If complying with the requirements of §63.643(c)(1)(ii) and either the vessel pressure at the time of the vessel opening exceeds 5 psig or the lower explosive limit at the time of the active purging was initiated exceeds 10 percent, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, the pressure of the vessel or equipment at the time of discharge to the atmosphere and, if applicable, the lower explosive limit of the vapors in the equipment when active purging was initiated.

(iv) If complying with the requirements of §63.643(c)(1)(iii), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere for each applicable maintenance vent opening.

(v) If complying with the requirements of §63.643(c)(1)(iv), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, records documenting the lack of a pure hydrogen supply, the date of maintenance vent opening, and the lower explosive limit of the vapors in the equipment at the time of discharge to the atmosphere for each applicable maintenance vent opening.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29881, June 12, 1996; 63 FR 44141, Aug. 18, 1998. Redesignated and amended at 74 FR 55686, 55687, Oct. 28, 2009; 75 FR 37731, June 30, 2010; 78 FR 37148, June 20, 2013; 80 FR 75246, Dec. 1, 2015; 81 FR 45241, July 13, 2016]

**V. REPORTING REQUIREMENTS.**

**# 014 [25 Pa. Code §135.21]**

**Emission statements**

a) The permittee 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

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based. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

b) Annual emission statements are due by March 1 for the preceding calendar year, 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.

**# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Reporting and recordkeeping requirements.**

(a) Each owner or operator subject to the wastewater provisions in §63.647 shall comply with the recordkeeping and reporting provisions in §§61.356 and 61.357 of 40 CFR part 61, subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of §63.640. There are no additional reporting and recordkeeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Recordkeeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(b) Each owner or operator subject to the gasoline loading rack provisions in §63.650 shall comply with the recordkeeping and reporting provisions in §63.428 (b) and (c), (g)(1), (h)(1) through (h)(3), and (k) of subpart R. These requirements are summarized in table 4 of this subpart. There are no additional reporting and recordkeeping requirements for gasoline loading racks under this subpart unless a loading rack is included in an emissions average. Recordkeeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(c) Each owner or operator subject to the marine tank vessel loading operation standards in §63.651 shall comply with the recordkeeping and reporting provisions in §§63.567(a) and 63.567(c) through (k) of subpart Y. These requirements are summarized in table 5 of this subpart. There are no additional reporting and recordkeeping requirements for marine tank vessel loading operations under this subpart unless marine tank vessel loading operations are included in an emissions average. Recordkeeping and reporting for emissions averages are specified in §63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(d) Each owner or operator subject to the equipment leaks standards in §63.648 shall comply with the recordkeeping and reporting provisions in paragraphs (d)(1) through (d)(6) of this section.

(1) Sections 60.486 and 60.487 of subpart VV of part 60 except as specified in paragraph (d)(1)(i) of this section; or §§63.181 and 63.182 of subpart H of this part except for §§63.182(b), (c)(2), and (c)(4).

(i) The signature of the owner or operator (or designate) whose decision it was that a repair could not be effected without a process shutdown is not required to be recorded. Instead, the name of the person whose decision it was that a repair could not be effected without a process shutdown shall be recorded and retained for 2 years.

(ii) [Reserved]

(2) The Notification of Compliance Status report required by §63.182(c) of subpart H and the initial semiannual report required by §60.487(b) of 40 CFR part 60, subpart VV shall be submitted within 150 days of the compliance date specified in §63.640(h); the requirements of subpart H of this part are summarized in table 3 of this subpart.

(3) An owner or operator who determines that a compressor qualifies for the hydrogen service exemption in §63.648 shall also keep a record of the demonstration required by §63.648.

(4) An owner or operator must keep a list of identification numbers for valves that are designated as leakless per §63.648(c)(10).

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(5) An owner or operator must identify, either by list or location (area or refining process unit), equipment in organic HAP service less than 300 hours per year within refining process units subject to this subpart.

(6) An owner or operator must keep a list of reciprocating pumps and compressors determined to be exempt from seal requirements as per §§63.648 (f) and (i).

(e) Each owner or operator of a source subject to this subpart shall submit the reports listed in paragraphs (e)(1) through (e)(3) of this section except as provided in paragraph (h)(5) of this section, and shall keep records as described in paragraph (i) of this section.

(1) A Notification of Compliance Status report as described in paragraph (f) of this section;

(2) Periodic Reports as described in paragraph (g) of this section; and

(3) Other reports as described in paragraph (h) of this section.

(f) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status report within 150 days after the compliance dates specified in §63.640(h) with the exception of Notification of Compliance Status reports submitted to comply with §63.640(l)(3) and for storage vessels subject to the compliance schedule specified in §63.640(h)(2). Notification of Compliance Status reports required by §63.640(l)(3) and for storage vessels subject to the compliance dates specified in §63.640(h)(2) shall be submitted according to paragraph (f)(6) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If the required information has been submitted before the date 150 days after the compliance date specified in §63.640(h), a separate Notification of Compliance Status report is not required within 150 days after the compliance dates specified in §63.640(h). If an owner or operator submits the information specified in paragraphs (f)(1) through (5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information. Each owner or operator of a gasoline loading rack classified under Standard Industrial Classification Code 2911 located within a contiguous area and under common control with a petroleum refinery subject to the standards of this subpart shall submit the Notification of Compliance Status report required by subpart R of this part within 150 days after the compliance dates specified in §63.640(h).

(1) The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1)(i) through (viii) of this section.

(i) For storage vessels, this report shall include the information specified in paragraphs (f)(1)(i)(A) through (f)(1)(i)(D) of this section.

(A) Identification of each storage vessel subject to this subpart, and for each Group 1 storage vessel subject to this subpart, the information specified in paragraphs (f)(1)(i)(A)(1) through (3) of this section. This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in §63.640(h)(2) or to comply with §63.640(l)(3).

(1) For each Group 1 storage vessel complying with §63.646 that is not included in an emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(2) For storage vessels subject to the compliance schedule specified in §63.640(h)(2) that are not complying with §63.646, the anticipated compliance date.

(3) For storage vessels subject to the compliance schedule specified in §63.640(h)(2) that are complying with §63.646 and the Group 1 storage vessels described in §63.640(l), the actual compliance date.

(B) If a closed vent system and a control device other than a flare is used to comply with §63.646 or §63.660, the owner or operator shall submit:

(1) A description of the parameter or parameters to be monitored to ensure that the control device is being properly

**SECTION C. Site Level Requirements**

operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed; and either

(2) The design evaluation documentation specified in §63.120(d)(1)(i) of subpart G or §63.985(b)(1)(i) of subpart SS (as applicable), if the owner or operator elects to prepare a design evaluation; or

(3) If the owner or operator elects to submit the results of a performance test, identification of the storage vessel and control device for which the performance test will be submitted, and identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.

(C) If a closed vent system and control device other than a flare is used, the owner or operator shall submit:

(1) The operating range for each monitoring parameter. The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(2) If a performance test is conducted instead of a design evaluation, results of the performance test demonstrating that the control device achieves greater than or equal to the required control efficiency. A performance test conducted prior to the compliance date of this subpart can be used to comply with this requirement, provided that the test was conducted using EPA methods and that the test conditions are representative of current operating practices.

(D) If a closed vent system and a flare is used, the owner or operator shall submit:

(1) Flare design (e.g., steam-assisted, air-assisted, or nonassisted);

(2) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by §63.120(e) of subpart G or §63.987(b) of subpart SS or §63.670(h), as applicable; and

(3) All periods during the compliance determination when the pilot flame is absent.

(ii) For miscellaneous process vents, identification of each miscellaneous process vent subject to this subpart, whether the process vent is Group 1 or Group 2, and the method of compliance for each Group 1 miscellaneous process vent that is not included in an emissions average (e.g., use of a flare or other control device meeting the requirements of §63.643(a)).

(iii) For miscellaneous process vents controlled by control devices required to be tested under §63.645 of this subpart and §63.116(c) of subpart G of this part, performance test results including the information in paragraphs (f)(1)(iii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in §63.645 and that the test conditions are representative of current operating conditions.

(A) The percentage of reduction of organic HAP's or TOC, or the outlet concentration of organic HAP's or TOC (parts per million by volume on a dry basis corrected to 3 percent oxygen), determined as specified in §63.116(c) of subpart G of this part; and

(B) The value of the monitored parameters specified in table 10 of this subpart, or a site-specific parameter approved by the permitting authority, averaged over the full period of the performance test,

(iv) For miscellaneous process vents controlled by flares, initial compliance test results including the information in paragraphs (f)(1)(iv)(A) and (B) of this section.

(A) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by §§63.645 and 63.116(a) of subpart G or §63.670(h), as applicable; and

(B) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

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(v) For equipment leaks complying with §63.648(c) (i.e., complying with the requirements of subpart H of this part), the Notification of Compliance Report Status report information required by §63.182(c) of subpart H and whether the percentage of leaking valves will be reported on a process unit basis or a sourcewide basis.

(vi) For each heat exchange system, identification of the heat exchange systems that are subject to the requirements of this subpart. For heat exchange systems at existing sources, the owner or operator shall indicate whether monitoring will be conducted as specified in §63.654(c)(4)(i) or §63.654(c)(4)(ii).

(vii) For pressure relief devices in organic HAP service subject to the requirements in §63.648(j)(3)(i) and (ii), this report shall include the information specified in paragraphs (f)(1)(vii)(A) and (B) of this section.

(A) A description of the monitoring system to be implemented, including the relief devices and process parameters to be monitored, and a description of the alarms or other methods by which operators will be notified of a pressure release.

(B) A description of the prevention measures to be implemented for each affected pressure relief device.

(viii) For each delayed coking unit, identification of whether the unit is an existing affected source or a new affected source and whether monitoring will be conducted as specified in §63.657(b) or (c).

(2) If initial performance tests are required by §§63.643 through 63.653, the Notification of Compliance Status report shall include one complete test report for each test method used for a particular source. On and after February 1, 2016, performance tests shall be submitted according to paragraph (h)(9) of this section.

(i) For additional tests performed using the same method, the results specified in paragraph (f)(1) of this section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) Performance tests are required only if specified by §§63.643 through 63.653 of this subpart. Initial performance tests are required for some kinds of emission points and controls. Periodic testing of the same emission point is not required.

(3) For each monitored parameter for which a range is required to be established under §63.120(d) of subpart G or §63.985(b) of subpart SS for storage vessels or §63.644 for miscellaneous process vents, the Notification of Compliance Status report shall include the information in paragraphs (f)(3)(i) through (iii) of this section.

(i) The specific range of the monitored parameter(s) for each emission point;

(ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range ensures compliance with the emission standard.

(A) If a performance test is required by this subpart for a control device, the range shall be based on the parameter values measured during the performance test supplemented by engineering assessments and manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of permitted parameter values.

(B) If a performance test is not required by this subpart for a control device, the range may be based solely on engineering assessments and manufacturers' recommendations.

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(4) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status report.



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(5) For emission points included in an emissions average, the Notification of Compliance Status report shall include the values of the parameters needed for input to the emission credit and debit equations in §63.652(g) and (h), calculated or measured according to the procedures in §63.652(g) and (h), and the resulting credits and debits for the first quarter of the year. The first quarter begins on the compliance date specified in §63.640.

(6) Notification of Compliance Status reports required by §63.640(l)(3) and for storage vessels subject to the compliance dates specified in §63.640(h)(2) shall be submitted no later than 60 days after the end of the 6-month period during which the change or addition was made that resulted in the Group 1 emission point or the existing Group 1 storage vessel was brought into compliance, and may be combined with the periodic report. Six-month periods shall be the same 6-month periods specified in paragraph (g) of this section. The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1) through (f)(5) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, as part of the periodic report, or in any combination of these four. If the required information has been submitted before the date 60 days after the end of the 6-month period in which the addition of the Group 1 emission point took place, a separate Notification of Compliance Status report is not required within 60 days after the end of the 6-month period. If an owner or operator submits the information specified in paragraphs (f)(1) through (f)(5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information.

(g) The owner or operator of a source subject to this subpart shall submit Periodic Reports no later than 60 days after the end of each 6-month period when any of the information specified in paragraphs (g)(1) through (7) of this section or paragraphs (g)(9) through (14) of this section is collected. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A Periodic Report is not required if none of the events identified in paragraphs (g)(1) through (7) of this section or paragraphs (g)(9) through (14) of this section occurred during the 6-month period unless emissions averaging is utilized. Quarterly reports must be submitted for emission points included in emission averages, as provided in paragraph (g)(8) of this section. An owner or operator may submit reports required by other regulations in place of or as part of the Periodic Report required by this paragraph (g) if the reports contain the information required by paragraphs (g)(1) through (14) of this section.

(1) For storage vessels, Periodic Reports shall include the information specified for Periodic Reports in paragraphs (g)(2) through (5) of this section. Information related to gaskets, slotted membranes, and sleeve seals is not required for storage vessels that are part of an existing source complying with §63.646.

(2) Internal floating roofs. (i) An owner or operator who elects to comply with §63.646 by using a fixed roof and an internal floating roof or by using an external floating roof converted to an internal floating roof shall submit the results of each inspection conducted in accordance with §63.120(a) of subpart G in which a failure is detected in the control equipment.

(A) For vessels for which annual inspections are required under §63.120(a)(2)(i) or (a)(3)(ii) of subpart G, the specifications and requirements listed in paragraphs (g)(2)(i)(A)(1) through (3) of this section apply.

(1) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

(2) Except as provided in paragraph (g)(2)(i)(A)(3) of this section, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.

(3) If an extension is utilized in accordance with §63.120(a)(4) of subpart G, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in §63.120(a)(4) of subpart G; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(B) For vessels for which inspections are required under §63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of subpart G (i.e., internal inspections), the specifications and requirements listed in paragraphs (g)(2)(i)(B)(1) and (2) of this section apply.

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(1) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than a 10 percent open.

(2) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(ii) An owner or operator who elects to comply with §63.660 by using a fixed roof and an internal floating roof shall submit the results of each inspection conducted in accordance with §63.1063(c)(1), (d)(1), and (d)(2) of subpart WW in which a failure is detected in the control equipment. For vessels for which inspections are required under §63.1063(c) and (d), the specifications and requirements listed in paragraphs (g)(2)(ii)(A) through (C) of this section apply.

(A) A failure is defined in §63.1063(d)(1) of subpart WW.

(B) Each Periodic Report shall include a copy of the inspection record required by §63.1065(b) of subpart WW when a failure occurs.

(C) An owner or operator who elects to use an extension in accordance with §63.1063(e)(2) of subpart WW shall, in the next Periodic Report, submit the documentation required by §63.1063(e)(2).

(3) External floating roofs. (i) An owner or operator who elects to comply with §63.646 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(i)(A) through (C) of this section.

(A) The owner or operator shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with §63.120(b) of subpart G in which the seal and seal gap requirements of §63.120(b)(3), (4), (5), or (6) of subpart G are not met. This documentation shall include the information specified in paragraphs (g)(3)(i)(A)(1) through (4) of this section.

(1) The date of the seal gap measurement.

(2) The raw data obtained in the seal gap measurement and the calculations described in §63.120(b)(3) and (4) of subpart G.

(3) A description of any seal condition specified in §63.120(b)(5) or (6) of subpart G that is not met.

(4) A description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(B) If an extension is utilized in accordance with §63.120(b)(7)(ii) or (b)(8) of subpart G, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in §63.120(b)(7)(ii) or (b)(8) of subpart G, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(C) The owner or operator shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by §63.120(b)(10) of subpart G. This documentation shall meet the specifications and requirements in paragraphs (g)(3)(i)(C)(1) and (2) of this section.

(1) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(2) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was

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made.

(ii) An owner or operator who elects to comply with §63.660 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(ii)(A) and (B) of this section.

(A) For vessels for which inspections are required under §63.1063(c)(2), (d)(1), and (d)(3) of subpart WW, the owner or operator shall submit, as part of the Periodic Report, a copy of the inspection record required by §63.1065(b) of subpart WW when a failure occurs. A failure is defined in §63.1063(d)(1).

(B) An owner or operator who elects to use an extension in accordance with §63.1063(e)(2) or (c)(2)(iv)(B) of subpart WW shall, in the next Periodic Report, submit the documentation required by those paragraphs.

(4) [Reserved]

(5) An owner or operator who elects to comply with §63.646 or §63.660 by installing a closed vent system and control device shall submit, as part of the next Periodic Report, the information specified in paragraphs (g)(5)(i) through (v) of this section, as applicable.

(i) The Periodic Report shall include the information specified in paragraphs (g)(5)(i)(A) and (B) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of either §63.119(e)(1) or (2) of subpart G, §63.985(a) and (b) of subpart SS, or §63.670, as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of either §63.119(e)(1) or (2) of subpart G, §63.985(a) and (b) of subpart SS, or §63.670, as applicable, due to planned routine maintenance.

(ii) If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status report. The description shall include: Identification of the control device for which the measured parameters were outside of the established ranges, and causes for the measured parameters to be outside of the established ranges.

(iii) If a flare is used prior to January 30, 2019 and prior to electing to comply with the requirements in §63.670, the Periodic Report shall describe each occurrence when the flare does not meet the general control device requirements specified in §63.11(b) of subpart A and shall include: Identification of the flare that does not meet the general requirements specified in §63.11(b) of subpart A, and reasons the flare did not meet the general requirements specified in §63.11(b) of subpart A.

(iv) If a flare is used on or after the date for which compliance with the requirements in §63.670 is elected, which can be no later than January 30, 2019, the Periodic Report shall include the items specified in paragraph (g)(11) of this section.

(v) An owner or operator who elects to comply with §63.660 by installing an alternate control device as described in §63.1064 of subpart WW shall submit, as part of the next Periodic Report, a written application as described in §63.1066(b)(3) of subpart WW.

(6) For miscellaneous process vents for which continuous parameter monitors are required by this subpart, periods of excess emissions shall be identified in the Periodic Reports and shall be used to determine compliance with the emission standards.

(i) Period of excess emission means any of the following conditions:

(A) An operating day when the daily average value of a monitored parameter, except presence of a flare pilot flame, is outside the range specified in the Notification of Compliance Status report. Monitoring data recorded during periods of

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monitoring system breakdown, repairs, calibration checks and zero (low-level) and high-level adjustments shall not be used in computing daily average values of monitored parameters.

(B) An operating day when all pilot flames of a flare are absent.

(C) An operating day when monitoring data required to be recorded in paragraphs (i)(3) (i) and (ii) of this section are available for less than 75 percent of the operating hours.

(D) For data compression systems under paragraph (h)(5)(iii) of this section, an operating day when the monitor operated for less than 75 percent of the operating hours or a day when less than 18 monitoring values were recorded.

(ii) For miscellaneous process vents, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other site-specific parameter(s) have been approved by the operating permit authority.

(iii) For periods in closed vent systems when a Group 1 miscellaneous process vent stream was detected in the bypass line or diverted from the control device and either directly to the atmosphere or to a control device that does not comply with the requirements in §63.643(a), report the date, time, duration, estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting mass emissions of organic HAP that bypassed the control device. For periods when the flow indicator is not operating, report the date, time, and duration.

(7) If a performance test for determination of compliance for a new emission point subject to this subpart or for an emission point that has changed from Group 2 to Group 1 is conducted during the period covered by a Periodic Report, the results of the performance test shall be included in the Periodic Report.

(i) Results of the performance test shall include the identification of the source tested, the date of the test, the percentage of emissions reduction or outlet pollutant concentration reduction (whichever is needed to determine compliance) for each run and for the average of all runs, and the values of the monitored operating parameters.

(ii) The complete test report shall be maintained onsite.

(8) The owner or operator of a source shall submit quarterly reports for all emission points included in an emissions average.

(i) The quarterly reports shall be submitted no later than 60 calendar days after the end of each quarter. The first report shall be submitted with the Notification of Compliance Status report no later than 150 days after the compliance date specified in §63.640.

(ii) The quarterly reports shall include:

(A) The information specified in this paragraph and in paragraphs (g)(2) through (g)(7) of this section for all storage vessels and miscellaneous process vents included in an emissions average;

(B) The information required to be reported by §63.428 (h)(1), (h)(2), and (h)(3) for each gasoline loading rack included in an emissions average, unless this information has already been submitted in a separate report;

(C) The information required to be reported by §63.567(e)(4) and (j)(3) of subpart Y for each marine tank vessel loading operation included in an emissions average, unless the information has already been submitted in a separate report;

(D) Any information pertaining to each wastewater stream included in an emissions average that the source is required to report under the Implementation Plan for the source;

(E) The credits and debits calculated each month during the quarter;

(F) A demonstration that debits calculated for the quarter are not more than 1.30 times the credits calculated for the quarter, as required under §§63.652(e)(4);

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- (G) The values of any inputs to the credit and debit equations in §63.652 (g) and (h) that change from month to month during the quarter or that have changed since the previous quarter; and
- (H) Any other information the source is required to report under the Implementation Plan for the source.
- (iii) Every fourth quarterly report shall include the following:
- (A) A demonstration that annual credits are greater than or equal to annual debits as required by §63.652(e)(3); and
- (B) A certification of compliance with all the emissions averaging provisions in §63.652 of this subpart.
- (9) For heat exchange systems, Periodic Reports must include the following information:
- (i) The number of heat exchange systems at the plant site subject to the monitoring requirements in §63.654.
- (ii) The number of heat exchange systems at the plant site found to be leaking.
- (iii) For each monitoring location where the total strippable hydrocarbon concentration was determined to be equal to or greater than the applicable leak definitions specified in §63.654(c)(6), identification of the monitoring location (e.g., unique monitoring location or heat exchange system ID number), the measured total strippable hydrocarbon concentration, the date the leak was first identified, and, if applicable, the date the source of the leak was identified;
- (iv) For leaks that were repaired during the reporting period (including delayed repairs), identification of the monitoring location associated with the repaired leak, the total strippable hydrocarbon concentration measured during re-monitoring to verify repair, and the re-monitoring date (i.e., the effective date of repair); and
- (v) For each delayed repair, identification of the monitoring location associated with the leak for which repair is delayed, the date when the delay of repair began, the date the repair is expected to be completed (if the leak is not repaired during the reporting period), the total strippable hydrocarbon concentration and date of each monitoring event conducted on the delayed repair during the reporting period, and an estimate of the potential strippable hydrocarbon emissions over the reporting period associated with the delayed repair.
- (10) For pressure relief devices subject to the requirements §63.648(j), Periodic Reports must include the information specified in paragraphs (g)(10)(i) through (iii) of this section.
- (i) For pressure relief devices in organic HAP gas or vapor service, pursuant to §63.648(j)(1), report any instrument reading of 500 ppm or greater.
- (ii) For pressure relief devices in organic HAP gas or vapor service subject to §63.648(j)(2), report confirmation that any monitoring required to be done during the reporting period to show compliance was conducted.
- (iii) For pressure relief devices in organic HAP service subject to §63.648(j)(3), report each pressure release to the atmosphere, including duration of the pressure release and estimate of the mass quantity of each organic HAP released, and the results of any root cause analysis and corrective action analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.
- (11) For flares subject to §63.670, Periodic Reports must include the information specified in paragraphs (g)(11)(i) through (iv) of this section.
- (i) Records as specified in paragraph (i)(9)(i) of this section for each 15-minute block during which there was at least one minute when regulated material is routed to a flare and no pilot flame is present.
- (ii) Visible emission records as specified in paragraph (i)(9)(ii)(C) of this section for each period of 2 consecutive hours during which visible emissions exceeded a total of 5 minutes.

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(iii) The 15-minute block periods for which the applicable operating limits specified in §63.670(d) through (f) are not met. Indicate the date and time for the period, the net heating value operating parameter(s) determined following the methods in §63.670(k) through (n) as applicable.

(iv) For flaring events meeting the criteria in §63.670(o)(3):

(A) The start and stop time and date of the flaring event.

(B) The length of time for which emissions were visible from the flare during the event.

(C) The periods of time that the flare tip velocity exceeds the maximum flare tip velocity determined using the methods in §63.670(d)(2) and the maximum 15-minute block average flare tip velocity recorded during the event.

(D) Results of the root cause and corrective actions analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

(12) For delayed coking units, the Periodic Report must include the information specified in paragraphs (g)(12)(i) through (iv) of this section.

(i) For existing source delayed coking units, any 60-cycle average exceeding the applicable limit in §63.657(a)(1).

(ii) For new source delayed coking units, any direct venting event exceeding the applicable limit in §63.657(a)(2).

(iii) The total number of double quenching events performed during the reporting period.

(iv) For each double quenching draining event when the drain water temperature exceeded 210 °F, report the drum, date, time, the coke drum vessel pressure or temperature, as applicable, when pre-vent draining was initiated, and the maximum drain water temperature during the pre-vent draining period.

(13) For maintenance vents subject to the requirements in §63.643(c), Periodic Reports must include the information specified in paragraphs (g)(13)(i) through (iv) of this section for any release exceeding the applicable limits in §63.643(c)(1). For the purposes of this reporting requirement, owners or operators complying with §63.643(c)(1)(iv) must report each venting event for which the lower explosive limit is 20 percent or greater.

(i) Identification of the maintenance vent and the equipment served by the maintenance vent.

(ii) The date and time the maintenance vent was opened to the atmosphere.

(iii) The lower explosive limit, vessel pressure, or mass of VOC in the equipment, as applicable, at the start of atmospheric venting. If the 5 psig vessel pressure option in §63.643(c)(1)(ii) was used and active purging was initiated while the lower explosive limit was 10 percent or greater, also include the lower explosive limit of the vapors at the time active purging was initiated.

(iv) An estimate of the mass of organic HAP released during the entire atmospheric venting event.

(14) Any changes in the information provided in a previous Notification of Compliance Status report.

(h) Other reports shall be submitted as specified in subpart A of this part and as follows:

(1) [Reserved]

(2) For storage vessels, notifications of inspections as specified in paragraphs (h)(2)(i) and (ii) of this section.

(i) In order to afford the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

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(A) Except as provided in paragraphs (h)(2)(i) (B) and (C) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (h)(2)(i)(C) of this section, if the internal inspection required by §63.120(a)(2), (a)(3), or (b)(10) of subpart G or §63.1063(d)(1) of subpart WW is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (h)(2)(i)(A) and/or (h)(2)(i)(B) of this section for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (h)(2)(i)(A) of this section, or sooner than 7 days after submitting the notification required by paragraph (h)(2)(i)(B) of this section for all storage vessels, or for individual storage vessels on a case-by-case basis.

(ii) In order to afford the Administrator the opportunity to have an observer present, the owner or operator of a storage vessel equipped with an external floating roof shall notify the Administrator of any seal gap measurements. The notification shall be made in writing at least 30 calendar days in advance of any gap measurements required by §63.120(b)(1) or (2) of subpart G or §63.1062(d)(3) of subpart WW. The State or local permitting authority can waive this notification requirement for all or some storage vessels subject to the rule or can allow less than 30 calendar days' notice.

(3) For owners or operators of sources required to request approval for a nominal control efficiency for use in calculating credits for an emissions average, the information specified in §63.652(h).

(4) The owner or operator who requests approval to monitor a different parameter than those listed in §63.644 for miscellaneous process vents or who is required by §63.653(a)(8) to establish a site-specific monitoring parameter for a point in an emissions average shall submit the information specified in paragraphs (h)(4)(i) through (h)(4)(iii) of this section. For new or reconstructed sources, the information shall be submitted with the application for approval of construction or reconstruction required by §63.5(d) of subpart A and for existing sources, and the information shall be submitted no later than 18 months prior to the compliance date. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) A description of the parameter(s) to be monitored to determine whether excess emissions occur and an explanation of the criteria used to select the parameter(s).

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter can be used to determine excess emissions and the schedule for this demonstration. The owner or operator must certify that they will establish a range for the monitored parameter as part of the Notification of Compliance Status report required in paragraphs (e) and (f) of this section.

(iii) The frequency and content of monitoring, recording, and reporting if: monitoring and recording are not continuous; or if periods of excess emissions, as defined in paragraph (g)(6) of this section, will not be identified in Periodic Reports required under paragraphs (e) and (g) of this section. The rationale for the proposed monitoring, recording, and reporting system shall be included.

(5) An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in paragraph (i) of this section.

(i) Requests shall be submitted with the Application for Approval of Construction or Reconstruction for new sources and no later than 18 months prior to the compliance date for existing sources. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal. Requests shall contain the information specified in paragraphs (h)(5)(iii) through (h)(5)(iv) of this section, as applicable.

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- (ii) The provisions in §63.8(f)(5)(i) of subpart A of this part shall govern the review and approval of requests.
- (iii) An owner or operator may use an automated data compression recording system that does not record monitored operating parameter values at a set frequency (for example, once every hour) but records all values that meet set criteria for variation from previously recorded values.
- (A) The system shall be designed to:
- (1) Measure the operating parameter value at least once every hour.
  - (2) Record at least 24 values each day during periods of operation.
  - (3) Record the date and time when monitors are turned off or on.
  - (4) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident.
  - (5) Compute daily average values of the monitored operating parameter based on recorded data.
- (B) You must maintain a record of the description of the monitoring system and data compression recording system including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all criteria of paragraph (h)(5)(iii)(A) of this section.
- (iv) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in §63.8(f) of subpart A of this part.
- (6) The owner or operator shall submit the information specified in paragraphs (h)(6)(i) through (h)(6)(iii) of this section, as applicable. For existing sources, this information shall be submitted in the initial Notification of Compliance Status report. For a new source, the information shall be submitted with the application for approval of construction or reconstruction required by §63.5(d) of subpart A of this part. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.
- (i) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units.
- (ii) The determination of applicability of this subpart to any storage vessel for which use varies from year to year.
- (iii) The determination of applicability of this subpart to any distillation unit for which use varies from year to year.
- (7) The owner or operator of a heat exchange system at an existing source must notify the Administrator at least 30 calendar days prior to changing from one of the monitoring options specified in §63.654(c)(4) to the other.
- (8) For fence-line monitoring systems subject to §63.658, within 45 calendar days after the end of each reporting period, each owner or operator shall submit the following information to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov>). The owner or operator need not transmit these data prior to obtaining 12 months of data.
- (i) Individual sample results for each monitor for each sampling period during the quarterly reporting period. For the first reporting period and for any period in which a passive monitor is added or moved, the owner or operator shall report the coordinates of all of the passive monitor locations. The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. Coordinates shall be in decimal degrees with at least five decimal places.
- (ii) The biweekly annual average concentration difference (delta c) values for benzene for the quarterly reporting period.
- (iii) Notation for each biweekly value that indicates whether background correction was used, all measurements in the sampling period were below detection, or whether an outlier was removed from the sampling period data set.



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(9) On and after February 1, 2016, if required to submit the results of a performance test or CEMS performance evaluation, the owner or operator shall submit the results according to the procedures in paragraphs (h)(9)(i) and (ii) of this section.

(i) Within 60 days after the date of completing each performance test as required by this subpart, the owner or operator shall submit the results of the performance tests following the procedure specified in either paragraph (h)(9)(i)(A) or (B) of this section.

(A) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>) at the time of the test, the owner or operator must submit the results of the performance test to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If an owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (h)(9)(i)(A).

(B) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(ii) Within 60 days after the date of completing each CEMS performance evaluation as required by this subpart, the owner or operator must submit the results of the performance evaluation following the procedure specified in either paragraph (h)(9)(ii)(A) or (B) of this section.

(A) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the owner or operator must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If an owner or operator claims that some of the performance evaluation information being submitted is CBI, the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (h)(9)(ii)(A).

(B) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the owner or operator must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

**VI. WORK PRACTICE REQUIREMENTS.****# 016 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee responsible for any source specified in Condition #001, above, 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

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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.

**# 017 [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.

(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) - (7) Not applicable

(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

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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.

**VII. ADDITIONAL REQUIREMENTS.****# 018 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The permittee can modify the mixture of pollutants regulated under section 112 which are VOCs or PM10 so long as the emission limitations of the permit are not violated. The permittee shall keep a log which identifies the mixture of pollutants regulated under section 112 and report the changes in the mixture of pollutants regulated under section 112 with the next report required to be provided to the Department.

**# 019 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

a) The following sources are permanently shut down as of January 13, 2017 and prohibited from operation by this condition:

1) Source 037 (Boiler #5) rated at 169 MMBtu/hr

b) The facility generated 135.81 tons of NO<sub>x</sub>, 0.78 tons of VOC, 12.45 tons of PM<sub>2.5</sub>, 931 tons of SO<sub>x</sub>, and 55.7 tons of CO Emission Reduction Credits (ERCs) with the permanent shutdown of Boiler 5 located in Bradford City.

c) The ERCs generated shall expire if not consumed within 10 years from the source shutdown date pursuant to 127.206(f). The use of these ERCs in applicability determinations for netting purposes is limited to the period specified in 25 PA Code 127.203a(a)(1).

d) Pursuant to the provisions of 25 Pa. Code Section 127.207(7), if the ERC generating source has not been dismantled or removed, the company must submit to the Department on an annual basis the verification of the continuance of the shutdown. If the company wishes to restart this source, a plan approval application shall be submitted.

e) The facility and any subsequent user of these credits shall comply with the requirements of 25 Pa. Code §127.206, §127.207, and §127.208, regarding ERC use and transfer requirements.

f) These ERCs may be used, traded, or sold after the approved entry of the ERCs by the Department into the Pennsylvania ERC Registry System.

**# 020 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.1]****Subpart A - General Provisions****Applicability.**

a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

**SECTION C. Site Level Requirements****# 021 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5]****Subpart A - General Provisions****Determination of construction or modification.**

a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

**# 022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.6]****Subpart A - General Provisions****Review of plans.**

a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.

b)(1) A separate request shall be submitted for each construction or modification project.

(2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.

c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

**# 023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.7]****Subpart A - General Provisions****Notification and record keeping.**

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

(1) A notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) [Reserved]

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

(6) A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the

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applicable opacity standard during a performance test required by 40 CFR 60.8 in lieu of Method 9 observation data as allowed by 40 CFR 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

c) Each owner or operator required to install a continuous monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

d) The summary report form shall contain the information and be in the format shown in Figure 1 (Summary Report Gaseous and Opacity Excess Emission and Monitoring System Performance) in 40 CFR 60.7 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and

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(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as specified in 40 CFR 60.7(f).

g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

**# 024 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.8]****Subpart A - General Provisions****Performance tests.**

(a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

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(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined

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using the arithmetic mean of the results of the two other runs.

(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60, Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60, Methods 18 and 19 of appendix A-6 of part 60, Methods 20, 22, and 25A of appendix A-7 of part 60, Methods 30A





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and 30B of appendix A-8 of part 60, and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, [www.epa.gov/ttn/emc](http://www.epa.gov/ttn/emc), to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

(i) Preparing the sample;

(ii) Confirming the true concentration of the sample;

(iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.

(iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;

(v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;

(vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

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(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;

(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(i) Checking audit samples to confirm their true value as reported by the AASP;

(ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;

(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at [http://standards.gov/standards\\_gov/a119.cfm](http://standards.gov/standards_gov/a119.cfm). The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999; 72 FR 27442, May 16, 2007; 75 FR 55646, Sept. 13, 2010; 79 FR 11241, Feb. 27, 2014, 81 FR 59809, August 30, 2016]

**# 025 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.11]****Subpart A - General Provisions****Compliance with standards and maintenance requirements.**

a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

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c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

e)(1) For the purpose of demonstration initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in 40 CFR 60.8, unless one of the following conditions apply. If no performance test under 40 CFR 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under 40 CFR 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in 40 CFR 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existing during the initial performance test conducted under 40 CFR 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Reference Method 9 of Appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in Appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under 40 CFR 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in 40 CFR 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by 40 CFR 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and 40 CFR 60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affect facility has notified the administrator to that effect,

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the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during an performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 40 CFR 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by 40 CFR 60.8, the opacity observation results and observer certification required by 40 CFR 60.11(e)(1) of this section, and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by 40 CFR 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with 40 CFR 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emission during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source was able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the FEDERAL REGISTER.

f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

**# 026 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.12]**

**Subpart A - General Provisions  
Circumvention.**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

**# 027 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.13]**

**Subpart A - General Provisions  
Monitoring requirements.**

a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

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b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 40 CFR 60.8 and as described in 40 CFR 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under 40 CFR 60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

d)(1) Owners and operators of all continuous emission monitoring systems installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable

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continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under §60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.



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- (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
- (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
  - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
  - (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
  - (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
  - (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
  - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
  - (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
  - (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
  - (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:
- (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).
  - (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency

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requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §§60.45(g) (2) and (3), 60.73(e), and 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

**# 028 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.100]****Subpart J - Standards of Performance for Petroleum Refineries  
Applicability, designation of affected facility, and reconstruction.**

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants with a design capacity for sulfur feed of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under paragraph (a) of this section other than a flare which commences construction, reconstruction or modification after June 11, 1973, and on or before May 14, 2007, or any fuel gas combustion device under paragraph (a) of this section that is also a flare which commences construction, reconstruction or modification after June 11, 1973, and on or before June 24, 2008, or any Claus sulfur recovery plant under paragraph (a) of this section which commences construction, reconstruction or modification after October 4, 1976, and on or before May 14, 2007, is subject to the requirements of this subpart except as provided under paragraphs (c) through (e) of this section.

(c) - (d) [Does not apply]

(e) Owners or operators may choose to comply with the applicable provisions of subpart Ja of this part to satisfy the requirements of this subpart for an affected facility.

(f) For purposes of this subpart, under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following January 17, 1984. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

[43 FR 10868, Mar. 15, 1978, as amended at 44 FR 61543, Oct. 25, 1979; 54 FR 34026, Aug. 17, 1989; 73 FR 35865, June 24, 2008; 77 FR 56463, Sep. 12, 2012]

**# 029 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]****Subpart J - Standards of Performance for Petroleum Refineries  
Standards for sulfur oxides.**

This condition is applicable to Source IDs: 041, 045, 049, 050, and 051

Each owner or operator that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test, required by 40 CFR 60.8, 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 initial startup, whichever comes first.

a) No owner or operator subject to the provisions of this subpart shall:

(1) Burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H<sub>2</sub>S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

(a)(2) through (d) [Do not apply]



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**# 030 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.110b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Applicability and designation of affected facility.**

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

[§120.110b(b) revised at 68 FR 59333, Oct. 15, 2003]

(c) [Reserved]

[§120.110b(c) removed and reserved at 68 FR 59333, Oct. 15, 2003]

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to 1,589.874 m<sup>3</sup> used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(8) Vessels subject to subpart GGGG of 40 CFR part 63.

[§120.110b(d)(8) added at 68 FR 59333, Oct. 15, 2003]

(e) Alternative means of compliance.-

(1) Option to comply with part 65. Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) Part 60, subpart A. Owners or operators who choose to comply with 40 CFR part 65, subpart C, 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 storage vessels. All sections and paragraphs

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of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, 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 C, must comply with 40 CFR part 65, subpart A.

(3) Internal floating roof report. If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

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

[§60.110b(e) added at 65 FR 78275, Dec. 14, 2000]

**# 031 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Standard for volatile organic compounds (VOC).**

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column

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wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) [Does Not Apply]

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, 60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in 60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m<sup>3</sup> which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in 60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in 60.114b of this subpart.

**# 032 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Testing and procedures.**

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

(a) After installing the control equipment required to meet 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage

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vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) [Does Not Apply]

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

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

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

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requirements of this paragraph.

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

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, 60.18 (e) and (f).

**# 033 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.115b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Reporting and recordkeeping requirements.**

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

(a) After installing control equipment in accordance with 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 60.112b(a)(1) and 60.113b(a)(1). This report shall be an attachment to the notification required by 60.7(a)(3).

(2) Keep a record of each inspection performed as required by 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in 60.113b(a)(2) are detected during the annual visual inspection required by 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 61.112b(a)(1) or 60.113b(a)(3) and list each repair made.

(b) [Does Not Apply]

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

(1) A copy of the operating plan.

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

(d) After installing a closed vent system and flare to comply with 60.112b, the owner or operator shall meet the following

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requirements.

(1) A report containing the measurements required by 60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under 60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

**# 034 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Monitoring of operations.**

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m<sup>3</sup> is subject to no provision of this subpart other than those required by this paragraph.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

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(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM Method D2879-83 (incorporated by reference--see 60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM Method D2879-83 (incorporated by reference--see 60.17); or

(ii) ASTM Method D323-82 (incorporated by reference--see 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specifications of 60.112b is exempt from the requirements of paragraphs (c) and (d) of this section.

**# 035 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-1]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry  
Standards: General.**

a) Each owner or operator subject to the provisions of 40 CFR 60 Subpart VV shall demonstrate compliance with the requirements of 40 CFR 60.482-1 to 40 CFR 60.482-10 for all equipment within 180 days of initial startup.

b) Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485.

c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination.

d) Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5).

**# 036 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-2]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry  
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 40 CFR

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60.485(b), except as provided in 40 CFR 60.482-1(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.

b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, 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 40 CFR 60.482-9.

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

d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), Provided the following requirements 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) Equipment with a barrier fluid degassing reservoir that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; 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) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and

(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.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

(ii) 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 40 CFR 60.482-9.

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

e) Any pump that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) 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 40 CFR 60.485(c), and



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(3) Is tested for compliance with paragraph (e)(2) 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 control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the paragraphs (a) through (e).

**# 037 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-3]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry  
Compressors.**

a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR 60.482-1(c) and paragraph (h) and (i) of this section.

b) Each compressor seal system as required in paragraph (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; or

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

c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

e)(1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

g)(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 40 CFR 60.482-9.

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

h) A compressor is exempt from the requirements of paragraphs (a) and (b), if it is equipped with a closed vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of 40 CFR 60.482-10, except as provided in paragraph (i) of this section.

i) Any compressor that is designated, as described in 40 CFR 60.486(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)-(h) if the compressor:

(1) 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 40 CFR 60.485(c); and

(2) Is tested for compliance with paragraph (i)(1) initially upon designation, annually, and at other times requested by the Administrator.

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j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

**# 038 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-4]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**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 40 CFR 60.485(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 40 CFR 60.482-9.

(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 40 CFR 60.485(c).

c) Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of paragraphs (a) and (b).

**# 039 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-5]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**Standards: Sampling connection systems.**

a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c).

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 (b)(3) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 60.482-10.

c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

**# 040 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-6]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**Standards: Open-ended valves or lines.**

(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c).

(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.

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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) at all other times.

**# 041 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-7]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**Standards: Valves in gas/vapor service and in light liquid service.**

a) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), 40 CFR 60.483-1, 2, and 40 CFR 60.482-1(c).

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c)(1) 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.

(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 40 CFR 60.482-9.

(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 40 CFR 60.486(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) 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 40 CFR 60.485(c), and

(3) Is tested for compliance with paragraph (f)(2) initially upon designation, annually, and at other times requested by the Administrator.

g) Any valve that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) 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), 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 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

**SECTION C. Site Level Requirements**

(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 becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

**# 042 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-8]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.**

a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in 40 CFR 60.485(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

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 40 CFR 60.482-9.

(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 40 CFR 60.482-7(e).

**# 043 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-9]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**Standards: Delay of repair.**

a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

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 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 40 CFR 60.482-10.

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.

**SECTION C. Site Level Requirements****# 044 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-10]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry****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 adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater.
- 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 provide a minimum residence time of 0.75 seconds at a minimum temperature of 816C.
- d) Flares used to comply with this subpart shall comply with the requirements of 40 CFR 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 systems shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(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 (f)(1)(ii) of this section:
- (i) Conduct an initial inspection according to the procedures in 40 CFR 60.485(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 40 CFR 60.485(b); and
  - (ii) Conduct annual inspections according to the procedures in 40 CFR 60.485(b).
- g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical 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 determined 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 (j)(2) of this section.
- (1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be

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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 (k)(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 40 CFR 60.14 or 40 CFR 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 (l)(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 40 CFR 60.486(c).

(4) For each inspection conducted in accordance with 40 CFR 60.485(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.

**# 045 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.483-1]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**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 40 CFR 60.487(b).

(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.

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(3) If a valve leak is detected, it shall be repaired in accordance with 40 CFR 60.482-7(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 40 CFR 60.485(b).

(2) If an instrument reading of 10,000 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.

**# 046 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.483-2]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**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 40 CFR 60.487(b).

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 40 CFR 60.482-7.

(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 40 CFR 60.482-7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

**# 047 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.484]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry**

**Equivalence of means of emission limitation.**

a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the guidelines specified in 40 CFR 60.484(b).

**SECTION C. Site Level Requirements**

- c) Determination of equivalence to the required work practices in this subpart will be evaluated by the guidelines specified in 40 CFR 60.484(c).
- d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.
- e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.
- (2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.
- (3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.
- f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.
- (2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e).

**# 048 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.485]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry  
Test methods and procedures.**

- a) In conducting the performance tests required in 40 CFR 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 40 CFR 60.8(b).
- (b) The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 40 CFR 60.483, and 40 CFR 60.484 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. The following calibration gases shall be used:
- (i) Zero air (less than 10 ppm of hydrocarbon in air); and
- (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.
- c) The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 40 CFR 60.482-3(i), 40 CFR 60.482-4, 40 CFR 60.482-7(f), and 40 CFR 60.482-10(e) as follows:
- (1) The requirements of paragraph (b) shall apply.
- (2) Method 21 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) Procedures that conform to the general methods in ASTM E-260, E-168, E-169 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.



**SECTION C. Site Level Requirements**

(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 an equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20C. Standard reference texts or ASTM D-2879 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20C 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) 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 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 ( $V_{max}$ ) for air-assisted flares shall be computed using the equation found in 40 CFR 60.485(g)(3).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the equation found in 40 CFR 60.485(g)(4).

(5) Method 18 and ASTM D 2504-67 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D 2382-76 (incorporated by reference-see 40 CFR 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, 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.

**# 049 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.486]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry  
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.

b) When each leak is detected as specified in 40 CFR 60.482-2, 40 CFR 60.482-3, 40 CFR 60.482-7, 40 CFR 60.482-8, and 40 CFR 60.483-2, the following requirements apply:

**SECTION C. Site Level Requirements**

(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 40 CFR 60.482-7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

c) When each leak is detected as specified in 40 CFR 60.482-2, 40 CFR 60.482-3, 40 CFR 60.482-7, 40 CFR 60.482-8, and 40 CFR 60.483-2, 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.

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

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

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(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 shutdown 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 40 CFR 60.482-10 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 40 CFR 60.482-10(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 40 CFR 60.482-2, 40 CFR 60.482-3, 40 CFR 60.482-4, and 40 CFR 60.482-5 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 40 CFR 60.482-2, 40 CFR 60.482-3, 40 CFR 60.482-4, and 40 CFR 60.482-5.

e) The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 40 CFR 60.482-10 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.

**SECTION C. Site Level Requirements**

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 40 CFR 60.482-3(i) and 40 CFR 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 40 CFR 60.482-3(i), or 40 CFR 60.482-7(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4.

(4)(i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 40 CFR 60.482-3(i), 40 CFR 60.482-4, and 40 CFR 60.482-7(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.

f) The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves that are designated as unsafe-to-monitor, an explanation for each valve stating why the valve is unsafe-to-monitor, and the plan for monitoring each valve.

(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 40 CFR 60.483-2:

(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 40 CFR 60.482-2(d)(5) and 40 CFR 60.482-3(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 40 CFR 60.480(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 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to this subpart.

**SECTION C. Site Level Requirements****# 050 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.487]  
Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals  
Manufacturing Industry  
Reporting requirements.**

- a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial start up 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 40 CFR 60.482-7, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7(f).
  - (3) Number of pumps subject to the requirements of 40 CFR 60.482-2, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e) and those pumps complying with 40 CFR 60.482-2(f).
  - (4) Number of compressors subject to the requirements of 40 CFR 60.482-3, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3(i) and those compressors complying with 40 CFR 60.482-3(h).
- c) All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486:
- (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 40 CFR 60.482-7(b) or 40 CFR 60.483-2,
    - (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1),
    - (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i),
    - (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii),
    - (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f),
    - (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and
    - (vii) 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) 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 40 CFR 60.483-1 and 40 CFR 60.483-2 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 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 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 C. Site Level Requirements**

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 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 the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

**# 051 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.502]****Subpart XX - Standards of Performance for Bulk Gasoline Terminals****Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.**

This condition is applicable to Source IDs: 216

On and after the date on which 60.8(a) requires a performance test to be completed, the owner or operator of each bulk gasoline terminal containing an affected facility shall comply with the requirements of this section.

(a) Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading.

(b) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded, except as noted in paragraph (c) of this section.

(c) For each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.

(d) Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack.

(e) Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures:

(1) The owner or operator shall obtain the vapor tightness documentation described in 60.505(b) for each gasoline tank truck which is to be loaded at the affected facility.

(2) The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected facility.

(3) The owner or operator shall cross-check each tank identification number obtained in paragraph (e)(2) of this section with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded.

(4) The terminal owner or operator shall notify the owner or operator of each nonvapor-tight gasoline tank truck loaded at the affected facility within 3 weeks after the loading has occurred.

(5) The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline tank truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained.

(6) Alternate procedures to those described in paragraphs (e)(1) through (5) of this section for limiting gasoline tank truck loadings may be used upon application to, and approval by, the Administrator.

(f) The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.

(g) The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.

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(h) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in 60.503(d).

(i) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water).

(j) Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.

**# 052 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.503]****Subpart XX - Standards of Performance for Bulk Gasoline Terminals****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). The three-run requirement of 60.8(f) does not apply to this subpart.

(b) Immediately before the performance test required to determine compliance with 60.502(b), (c), and (h), the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test.

(c) [Does not apply]

(d) The owner or operator shall determine compliance with the standard in 60.502(h) as follows:

(1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with 2.5 mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck.

(2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

(e) The performance test requirements of paragraph (c) of this section do not apply to flares defined in §60.501 and meeting the requirements in §60.18(b) through (f). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in §§60.18(b) through (f) and 60.503(a), (b), and (d).

**# 053 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.590]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Applicability and designation of affected facility.**

This condition is applicable to the Source ID: 206

a)(1) The provisions of this 40 CFR 60 Subpart GGG apply to affected facilities in petroleum refineries.

(2) A compressor is an affected facility.

(3) The group of all the equipment (defined in 40 CFR 60.591) within a process unit is an affected facility.

b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 4, 1983, is subject to the requirements of this subpart.

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c) Addition or replacement of equipment (defined in 40 CFR 60.591) for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

d) Facilities subject to subpart VV or subpart KKK of 40 CFR part 60 are excluded from this subpart.

**# 054 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]  
Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries  
Standards.**

This condition is applicable to Source ID: 206

a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of 40 CFR 60.482-1 to 40 CFR 60.482-10 as soon as practicable, but no later than 180 days after initial startup.

b) An owner or operator may elect to comply with the requirements of 40 CFR 60.483-1 and 40 CFR 60.483-2.

c) An owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of 40 CFR 60.484.

d) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of 40 CFR 60.485 except as provided in 40 CFR 60.593.

e) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of 40 CFR 60.486 and 40 CFR 60.487.

**# 055 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.593]  
Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries  
Exceptions.**

This condition is applicable to Source ID: 206

a) Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.

b)(1) Compressors in hydrogen service are exempt from the requirements of 40 CFR 60.592 if an owner or operator demonstrates that a compressor is in hydrogen service.

(2) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 (incorporated by reference as specified in 40 CFR 60.17) shall be used.

(3)(i) An owner or operator may use engineering judgment rather than procedures in paragraph (b)(2) of this section to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures in paragraph (b)(2) shall be used to resolve the disagreement.

(ii) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures in paragraph (b)(2).

c) Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 60.15 is exempt from 40 CFR 60.482 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the

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provisions of 40 CFR 60.482 (a), (b), (c), (d), (e), and (h).

d) An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150C as determined by ASTM Method D-86 (incorporated by reference as specified in 40 CFR 60.18).

e) Not applicable

**# 056 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1]****Subpart A--General Provisions****Applicability.**

a) General.

(1) Terms used throughout this part are defined in 40 CFR 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in 40 CFR 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (including those requirements in part 60 of this chapter), or a standard issued under State authority.

(4) Not applicable

(5) [Reserved]

(6) Not applicable

(7) Not applicable

(8) Not applicable

(9) [Reserved]

(10) Not applicable

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or



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deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in 40 CFR 63.9(i).

(13) Special provisions set forth under an applicable subpart of this part or in a relevant standard established under this part shall supersede any conflicting provisions of this subpart.

(14) Any standards, limitations, prohibitions, or other federally enforceable requirements established pursuant to procedural regulations in this part [including, but not limited to, equivalent emission limitations established pursuant to section 112(g) of the Act] shall have the force and effect of requirements promulgated in this part and shall be subject to the provisions of this subpart, except when explicitly specified otherwise.

b) Initial applicability determination for this part.

(1) Not applicable

(2) In addition to complying with the provisions of this part, the owner or operator of any such source may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of the Act (42 U.S.C. 7661). For more information about obtaining an operating permit, see part 70 of this chapter.

(3) Not applicable

c) Applicability of this part after a relevant standard has been set under this part.

(1) Not applicable

(2) Not applicable

(3) [Reserved]

(4) If the owner or operator of an existing source obtains an extension of compliance for such source in accordance with the provisions of subpart D of this part, the owner or operator shall comply with all requirements of this subpart except those requirements that are specifically overridden in the extension of compliance for that source.

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

d) [Reserved]

e) Not applicable

**# 057 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.4]****Subpart A--General Provisions****Prohibited activities and circumvention.**

a) Prohibited activities.

(1) No owner or operator subject to the provisions of this part shall operate any affected source in violation of the requirements of this part except as specified in 40 CFR 63.4(a)(1).

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3) After the effective date of an approved permit program in a State, no owner or operator of an affected source in that State who is required under this part to obtain a title V permit shall operate such source except in compliance with the

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provisions of this part and the applicable requirements of the permit program in that State.

(4) [Reserved]

(5) An owner or operator of an affected source who is subject to an emission standard promulgated under this part shall comply with the requirements of that standard by the date(s) established in the applicable subpart(s) of this part (including this subpart) regardless of whether--

(i) A title V permit has been issued to that source; or

(ii) If a title V permit has been issued to that source, whether such permit has been revised or modified to incorporate the emission standard.

b) Circumvention. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to--

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(3) The fragmentation of an operation such that the operation avoids regulation by a relevant standard.

c) Severability. Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

**# 058 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.5]**

**Subpart A--General Provisions**

**Construction and reconstruction.**

a) Applicability. {See 40 CFR 63.5(a)}

b) Requirements for existing, newly constructed, and reconstructed sources. {See 40 CFR 63.5(b)}

c) [Reserved]

d) Application for approval of construction or reconstruction. {See 40 CFR 63.5(d)}

e) Approval of construction or reconstruction. {See 40 CFR 63.5(e)}

f) Approval of construction or reconstruction based on prior State preconstruction review. {See 40 CFR 63.5(f)}

**# 059 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6]**

**Subpart A--General Provisions**

**Compliance with standards and maintenance requirements.**

a) Applicability. {See 40 CFR 63.6(a)}

b) Compliance dates for new and reconstructed sources.

(1) Not applicable

(2) Not applicable

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to sections 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than

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the date 3 years after the effective date if:

- (i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; and
- (ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) Not applicable

(5) Not applicable

(6) [Reserved]

(7) Not applicable

c) Compliance dates for existing sources.

(1) Not applicable

(2) Not applicable

(3)-(4) [Reserved]

(5) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected existing area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard shall comply by the date specified in the standard for existing area sources that become major sources. If no such compliance date is specified in the standard, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in that standard for other existing sources. This compliance period shall apply to existing area sources that become affected major sources regardless of whether the existing area source previously was affected by that standard. Notwithstanding the previous two sentences, however, if the existing area source becomes a major source by the addition of a new affected source or by reconstructing, the portion of the existing facility that is a new affected source or a reconstructed source shall comply with all requirements of that standard that affect new sources, including the compliance date for new sources.

d) [Reserved]

e) Operation and maintenance requirements.

(1)(i) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

(ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures [including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section], review of operation and maintenance records, and inspection of the source.

(3) Startup, Shutdown, and Malfunction Plan.

(i) The owner or operator of an affected source (i) shall develop and implement a written startup, shutdown, and malfunction

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plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under 40 CFR 63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit. The purpose of the startup, shutdown, and malfunction plan is to--

(A) Ensure that, at all times, owners or operators operate and maintain affected sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator shall keep records of these events as specified in 40 CFR 63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator [see 40 CFR 63.10(d)(5)(ii)].

(v) The owner or operator shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the affected source is no longer subject to the provisions of this part. In addition, if the startup, shutdown, and malfunction plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record, to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(2) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the

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Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(viii) If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.

f) Compliance with nonopacity emission standards--

(1) Applicability. The nonopacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in 40 CFR 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in 40 CFR 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if--

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in 40 CFR 63.7(e) of this subpart; and

(D) Not applicable

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results,

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monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

g) Use of an alternative nonopacity emission standard. {See 40 CFR 63.6(g)}

h) Compliance with opacity and visible emission standards--

(1) Applicability. The opacity and visible emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if--

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in 40 CFR 63.7(e) of this subpart; and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in 40 CFR 63.7(c) of this section.

(3) [Reserved]

(4) Not applicable

(5) Not applicable

(6) Availability of records. The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) Not applicable

(8) Not applicable

(9) Not applicable

i) Extension of compliance with emission standards. {See 40 CFR 63.6(i)}

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j) Exemption from compliance with emission standards. {See 40 CFR 63.6(j)}

**# 060 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7]**

**Subpart A--General Provisions**

**Performance testing requirements.**

a) Applicability and performance test dates.

(1) Not applicable

(2) Not applicable

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

b) Not applicable

c) Not applicable

d) Performance testing facilities. If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

e) Conduct of performance tests.

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under 40 CFR 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator--

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology; or

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- (ii) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or
  - (iii) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or
  - (iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.
- (3) Not applicable
- (4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- f) Not applicable
- g) Not applicable
- h) Waiver of performance tests. {See 40 CFR 63.7(h)}

**# 061 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.8]****Subpart A--General Provisions****Monitoring requirements.**

- a) Not applicable
- b) Conduct of monitoring.
- (1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator--
- (i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or
  - (ii) Approves the use of alternatives to any monitoring requirements or procedures.
  - (iii) Owners or operators with flares subject to 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.
- (2) Not applicable
- (3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.
- c) Operation and maintenance of continuous monitoring systems.
- (1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.
- (i) The owner or operator of an affected source shall ensure the immediate repair or replacement of CMS parts to correct "routine" or otherwise predictable CMS malfunctions as defined in the source's startup, shutdown, and malfunction plan required by 40 CFR 63.6(e)(3). The owner or operator shall keep the necessary parts for routine repairs of the affected equipment readily available. If the plan is followed and the CMS repaired immediately, this action shall be reported in the semiannual startup, shutdown, and malfunction report required under 40 CFR 63.10(d)(5)(i).



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(ii) Not applicable

(iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records, manufacturing recommendations and specifications, and inspection of the CMS. Operation and maintenance procedures written by the CMS manufacturer and other guidance also can be used to maintain and operate each CMS.

(2) All CMS shall be installed such that representative measurements of emissions or process parameters from the affected source are obtained. In addition, CEMS shall be located according to procedures contained in the applicable performance specification(s).

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under 40 CFR 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Not applicable

(5) Not applicable

(6) Not applicable

(7) Not applicable

(8) Not applicable

d) Not applicable

e) Not applicable

f) Use of an alternative monitoring method--{See 40 CFR 63.8(f)}

g) Not applicable

**# 062 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.9]**

**Subpart A--General Provisions**

**Notification requirements.**

a) Applicability and general information. {See 40 CFR 63.9(a)}

b) Initial notifications.

(1)(i) Not applicable

(ii) Not applicable

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under 40 CFR 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) Not applicable

(3) Not applicable

(4) The owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is required

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under 40 CFR 63.5(d) shall provide the information specified in 40 CFR 63.9(b)(4) in writing to the Administrator.

(5) After the effective date of any relevant standard established by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that it becomes an affected source subject to such standard, shall notify the Administrator, in writing, of the intended construction or reconstruction. The notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The notification shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date. The notification shall include all the information required for an application for approval of construction or reconstruction as specified in 40 CFR 63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill the requirements of this paragraph.

c) Request for extension of compliance. {See 40 CFR 63.9(c)}

d) Notification that source is subject to special compliance requirements. {See 40 CFR 63.9(d)}

e) Not applicable

f) Not applicable

g) Not applicable

h) Not applicable

i) Adjustment to time periods or postmark deadlines for submittal and review of required communications. {See 40 CFR 63.9(i)}

j) Not applicable

**# 063 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.10]**

**Subpart A--General Provisions**

**Recordkeeping and reporting requirements.**

a) Applicability and general information. {See 40 CFR 63.10(a)}

b) General recordkeeping requirements.

(1) Not applicable

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of--

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the air pollution control equipment;

(iii) Not applicable

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan [see 40 CFR 63.6(e)(3)];

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction

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plan [see 40 CFR 63.6(e)(3)] when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Not applicable

(vii) Not applicable

(viii) Not applicable

(ix) Not applicable

(x) All CMS calibration checks;

(xi) Not applicable

(xii) Not applicable

(xiii) Not applicable

(xiv) Not applicable

(3) Not applicable

c) Not applicable

d) General reporting requirements.

(1) Not applicable

(2) Not applicable

(3) Not applicable

(4) Progress reports. The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5)(i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan [see 40 CFR 63.6(e)(3)], the owner or operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does

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not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile [FAX] transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in 40 CFR 63.9(i).

e) Not applicable

f) Waiver of recordkeeping or reporting requirements. {See 40 CFR 63.10(f)}

**# 064 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11]**

**Subpart A--General Provisions**

**Control device requirements.**

a) Applicability. This section contains requirements for control devices used to comply with provisions in relevant standards. These requirements apply only to affected sources covered by relevant standards referring directly or indirectly to this section.

b) Flares.

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in Appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. 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.

(6) An owner or operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(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 equation found in 40 CFR 63.11(b)(6)(i)(A).

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(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the equation found in 40 CFR 63.11(b)(6)(ii).

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Methods 2, 2A, 2C, or 2D in Appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity  $V_{max}$ , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity,  $V_{max}$ , for flares complying with this paragraph shall be determined by the equation found in 40 CFR 63.11(b)(7)(iii).

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity  $V_{max}$ . The maximum permitted velocity,  $V_{max}$ , for air-assisted flares shall be determined by the equation found in 40 CFR 63.11(b)(8).

**# 065 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.12]**

**Subpart A--General Provisions**

**State authority and delegations.**

a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from--

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

b)(1) section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

**SECTION C. Site Level Requirements****# 066 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.15]****Subpart A--General Provisions****Availability of information and confidentiality.**

a) Availability of information. {See 40 CFR 63.15(a)}

b) Confidentiality. {See 40 CFR 63.15(b)}

**# 067 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.421]****Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.****Definitions.**

This condition is applicable to Source ID: 216

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act; in subparts A, K, Ka, Kb, and XX of part 60 of this chapter; or in subpart A of this part. All terms defined in both subpart A of part 60 of this chapter and subpart A of this part shall have the meaning given in subpart A of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Bulk gasoline terminal means any gasoline facility which receives gasoline by pipeline, ship or barge, and has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal, State or local law and discoverable by the Administrator and any other person.

Controlled loading rack, for the purposes of §63.420, means a loading rack equipped with vapor collection and processing systems that reduce displaced vapor emissions to no more than 80 milligrams of total organic compounds per liter of gasoline loaded, as measured using the test methods and procedures in §60.503 (a) through (c) of this chapter.

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in the gasoline liquid transfer and vapor collection systems. This definition also includes the entire vapor processing system except the exhaust port(s) or stack(s).

Flare means a thermal oxidation system using an open (without enclosure) flame.

Gasoline cargo tank means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

In gasoline service means that a piece of equipment is used in a system that transfers gasoline or gasoline vapors.

Limitation(s) on potential to emit means limitation(s) limiting a source's potential to emit as defined in §63.2 of subpart A of this part.

Operating parameter value means a value for an operating or emission parameter of the vapor processing system (e.g., temperature) which, if maintained continuously by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with the applicable emission standard. The operating parameter value is determined using the procedures outlined in §63.425(b).

Oxygenated gasoline means the same as defined in 40 CFR 80.2(rr).

Pipeline breakout station means a facility along a pipeline containing storage vessels used to relieve surges or receive and store gasoline from the pipeline for reinjection and continued transportation by pipeline or to other facilities.

Reformulated gasoline means the same as defined in 40 CFR 80.2(ee).

Thermal oxidation system means a combustion device used to mix and ignite fuel, air pollutants, and air to provide a flame to heat and oxidize hazardous air pollutants. Auxiliary fuel may be used to heat air pollutants to combustion temperatures.

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Uncontrolled loading rack means a loading rack used to load gasoline cargo tanks that is not a controlled loading rack.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.425(e), and which is subject at all times to the test requirements in §63.425 (f), (g), and (h).

Volatile organic liquid (VOL) means, for the purposes of this subpart, gasoline.

[59 FR 64318, Dec. 14, 1994, as amended at 62 FR 9093, Feb. 28, 1997; 68 FR 70965, Dec. 19, 2003]

**# 068 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.422 Standards]  
Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.  
Loading racks.**

This condition is applicable to Source ID: 216

(a) Each owner or operator of loading racks at a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in 60.502 of this chapter except for paragraphs (b), (c), and (j) of that section. For purposes of this section, the term "affected facility" used in 60.502 of this chapter means the loading racks that load gasoline cargo tanks at the bulk gasoline terminals subject to the provisions of this subpart.

(b) Emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with 60.502(e) of this chapter as follows:

(1) For the purposes of this section, the term "tank truck" as used in 60.502(e) of this chapter means "cargo tank."

(2) Section 60.502(e)(5) of this chapter is changed to read: The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:

(i) The gasoline cargo tank meets the applicable test requirements in 63.425(e);

(ii) For each gasoline cargo tank failing the test in 63.425 (f) or (g) at the facility, the cargo tank either:

(A) Before repair work is performed on the cargo tank, meets the test requirements in 63.425 (g) or (h), or

(B) After repair work is performed on the cargo tank before or during the tests in 63.425 (g) or (h), subsequently passes the annual certification test described in 63.425(e).

(d) [Does not apply]

(e) As an alternative to 40 CFR 60.502(h) and (i) as specified in paragraph (a) of this section, the owner or operator may comply with paragraphs (e)(1) and (2) of this section.

(1) The owner or operator shall design and operate the vapor processing system, vapor collection system, and liquid loading equipment to prevent gauge pressure in the railcar gasoline cargo tank from exceeding the applicable test limits in §63.425(e) and (i) during product loading. This level is not to be exceeded when measured by the procedures specified in 40 CFR 60.503(d) of this chapter.

(2) No pressure-vacuum vent in the bulk gasoline terminal's vapor processing system or vapor collection system may begin to open at a system pressure less than the applicable test limits in §63.425(e) or (i).

[59 FR 64318, Dec. 14, 1994; 60 FR 32913, June 26, 1995, as amended at 68 FR 70965, Dec. 19, 2003]

**SECTION C. Site Level Requirements****# 069 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.425]**

**Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.**

**Test methods and procedures.**

This condition is applicable to Source ID: 216

(a) Each owner or operator subject to the emission standard in 63.422(b) or 60.112b(a)(3)(ii) of this chapter shall conduct a performance test on the vapor processing system according to the test methods and procedures in 60.503, except a reading of 500 ppm shall be used to determine the level of leaks to be repaired under 60.503(b). If a flare is used to control emissions, and emissions from this device cannot be measured using these methods and procedures, the provisions of 63.11(b) shall apply.

(b) For each performance test conducted under paragraph (a) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the following procedure:

(1) During the performance test, continuously record the operating parameter under 63.427(a);

(2) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and

(3) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in 63.422(b) or 60.112b(a)(3)(ii) of this chapter.

(c) For performance tests performed after the initial test, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test.

(d) [Does not apply]

(e) Annual certification test. The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures: Method 27, appendix A, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (Pi) for the pressure test shall be 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. The initial vacuum (Vi) for the vacuum test shall be 150 mm H<sub>2</sub>O (6 in. H<sub>2</sub>O), gauge. The maximum allowable pressure and vacuum changes ("p", "v) are as shown in the second column of Table 2 of this paragraph.

[Refer to 40 CFR 63.425(e) for Table 2.]

(i) After completing the tests under paragraph (e)(i) of this section, use the procedures in Method 27 to repressurize the tank to 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.

(ii) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H<sub>2</sub>O (5 in. H<sub>2</sub>O).

(f) Leak detection test. The leak detection test shall be performed using Method 21, appendix A, 40 CFR part 60, except omit section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.

(1) The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.

(2) In addition to the procedures in Method 21, include the following procedures:



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- (i) Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.
- (ii) To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between each leak detection. The duration of the purge shall be in excess of two instrument response times.
- (iii) Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak.
- (g) Nitrogen pressure decay field test. For those cargo tanks with manifolded product lines, this test procedure shall be conducted on each compartment.
- (1) Record the cargo tank capacity. Upon completion of the loading operation, record the total volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H<sub>2</sub>O (18.0 in. H<sub>2</sub>O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.
- (i) The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4 minutes or the result from the equation below, whichever is greater.  $T = V_h \times 0.004$  where: T = maximum allowable time to pressurize the cargo tank, min; V<sub>h</sub> = cargo tank headspace volume during testing, gal.
- (2) It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge, a fine adjust valve be used to adjust the headspace pressure to 460 mm H<sub>2</sub>O (18.0 in. H<sub>2</sub>O), gauge for the next 30 5 seconds.
- (3) Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (PF) as calculated from the following equation:  $ER26JN95.000$  where: (PF) = minimum allowable final headspace pressure, in. H<sub>2</sub>O, gauge; VS = total cargo tank shell capacity, gal; V<sub>h</sub> = cargo tank headspace volume after loading, gal; 18.0 = initial pressure at start of test, in. H<sub>2</sub>O, gauge; N = 5-minute continuous performance standard at any time from the third column of Table 2 of 63.425(e)(i), inches H<sub>2</sub>O.
- (4) Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. Close the internal vapor valve(s), wait for 30 5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the "final pressure."
- (5) If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in Table 3 of this paragraph, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in paragraph (g)(3) of this section, then the cargo tank is considered to be a vapor-tight gasoline cargo tank.

[Refer to 40 CFR 63.425(e)(5) for Table 3.]

- (h) Continuous performance pressure decay test. The continuous performance pressure decay test shall be performed using Method 27, appendix A, 40 CFR Part 60. Conduct only the positive pressure test using a time period (t) of 5 minutes. The initial pressure (P<sub>i</sub>) shall be 460 mm H<sub>2</sub>O (18 in. H<sub>2</sub>O), gauge. The maximum allowable 5-minute pressure change ("p") which shall be met at any time is shown in the third column of Table 2 of 63.425(e)(1). [59 FR 64318, Dec.14,1994; 60 FR 7627, Feb. 8, 1995; 60 FR 32913, June 26,1995]

**SECTION C. Site Level Requirements****# 070 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.428]**

**Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.**

**Reporting and recordkeeping.**

This condition is applicable to Source ID: 216

(a) [Does not apply]

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as follows:

(1) Annual certification testing performed under 63.425(e): and

(2) Continuous performance testing performed at any time at that facility under 63.425 (f), (g), and (h).

(3) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) Name of test: Annual Certification Test -- Method 27 ( 63.425(e)(1)), Annual Certification Test -- Internal Vapor Valve ( 63.425(e)(2)), Leak Detection Test ( 63.425(f)), Nitrogen Pressure Decay Field Test ( 63.425(g)), or Continuous Performance Pressure Decay Test ( 63.425(h)).

(ii) Cargo tank owner's name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) Witnessing inspector, if any: Name, signature, and affiliation.

(vii) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.

(viii) Test results: Pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument and leak definition.

(c) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall:

(1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under 63.427(a). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.

(2) Record and report simultaneously with the notification of compliance status required under 63.9(h):

(i) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under 63.425(b); and

(ii) The following information when using a flare under provisions of 63.11(b) to comply with 63.422(b):

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted); and

(B) All visible emissions readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under 63.425(a).

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(3) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in 63.427(a), the owner or operator shall submit a description of planned reporting and recordkeeping procedures. The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the permit application.

(d) - (f) [Do not apply]

(g) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall include in a semi-annual report to the Administrator the following information, as applicable:

(1) Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility;

(2) - (3) [Do not apply]

(h) Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall submit an excess emissions report to the Administrator in accordance with 63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under this subpart, and the following information shall be included in the excess emissions report, as applicable:

(1) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under 63.425(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

(2) Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(3) Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with 63.422(c)(2).

(4) [Does not apply]

(i) - (j) [Do not apply]

(k) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraph (b) of this section, an owner or operator may comply with the requirements in either paragraph (k)(1) or (2) of this section.

(1) An electronic copy of each record is instantly available at the terminal.

(i) The copy of each record in paragraph (k)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (k)(1) of this section.

(2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame.

(i) The copy of each record in paragraph (k)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph

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(k)(2) of this section.

[59 FR 64318, Dec. 14, 1994, as amended at 61 FR 7723, Feb. 29, 1996; 62 FR 9093, Feb. 28, 1997; 68 FR 70966, Dec. 19, 2003; 71 FR 17358, Apr. 6, 2006]

**# 071 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Applicability and designation of affected source.**

(a) This subpart applies to petroleum refining process units and to related emissions points that are specified in paragraphs (c)(1) through (9) of this section that are located at a plant site and that meet the criteria in paragraphs (a)(1) and (2) of this section:

(1) Are located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and

(2) Emit or have equipment containing or contacting one or more of the hazardous air pollutants listed in table 1 of this subpart.

(b)(1) If the predominant use of the flexible operation unit, as described in paragraphs (b)(1)(i) and (ii) of this section, is as a petroleum refining process unit, as defined in §63.641, then the flexible operation unit shall be subject to the provisions of this subpart.

(i) Except as provided in paragraph (b)(1)(ii) of this section, the predominant use of the flexible operation unit shall be the use representing the greatest annual operating time.

(ii) If the flexible operation unit is used as a petroleum refining process unit and for another purpose equally based on operating time, then the predominant use of the flexible operation unit shall be the use that produces the greatest annual production on a mass basis.

(2) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units shall be reported as specified in §63.655(h)(6)(i).

(c) For the purposes of this subpart, the affected source shall comprise all emissions points, in combination, listed in paragraphs (c)(1) through (9) of this section that are located at a single refinery plant site.

(1) All miscellaneous process vents from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(2) All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(3) All wastewater streams and treatment operations associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(4) All equipment leaks from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(5) All gasoline loading racks classified under Standard Industrial Classification code 2911 meeting the criteria in paragraph (a) of this section;

(6) Not applicable;

(7) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery meeting the criteria in paragraph (a) of this section; and

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- (8) All heat exchange systems, as defined in this subpart.
- (9) Not applicable.
- (d) The affected source subject to this subpart does not include the emission points listed in paragraphs (d)(1) through (d)(5) of this section.
- (1) Stormwater from segregated stormwater sewers;
- (2) Spills;
- (3) Any pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system that is intended to operate in organic hazardous air pollutant service, as defined in §63.641 of this subpart, for less than 300 hours during the calendar year;
- (4) Catalytic cracking unit and catalytic reformer catalyst regeneration vents, and sulfur plant vents; and
- (5) Emission points routed to a fuel gas system, as defined in §63.641, provided that on and after January 30, 2019, any flares receiving gas from that fuel gas system are subject to §63.670. No other testing, monitoring, recordkeeping, or reporting is required for refinery fuel gas systems or emission points routed to refinery fuel gas systems.
- (e) The owner or operator of a storage vessel constructed on or before August 18, 1994, shall follow the procedures specified in paragraphs (e)(1) and (e)(2) of this section to determine whether a storage vessel is part of a source to which this subpart applies. The owner or operator of a storage vessel constructed after August 18, 1994, shall follow the procedures specified in paragraphs (e)(1), (e)(2)(i), and (e)(2)(ii) of this section to determine whether a storage vessel is part of a source to which this subpart applies.
- (1) Where a storage vessel is used exclusively by a process unit, the storage vessel shall be considered part of that process unit.
- (i) If the process unit is a petroleum refining process unit subject to this subpart, then the storage vessel is part of the affected source to which this subpart applies.
- (ii) If the process unit is not subject to this subpart, then the storage vessel is not part of the affected source to which this subpart applies.
- (2) If a storage vessel is not dedicated to a single process unit, then the applicability of this subpart shall be determined according to the provisions in paragraphs (e)(2)(i) through (e)(2)(iii) of this section.
- (i) If a storage vessel is shared among process units and one of the process units has the predominant use, as determined by paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section, then the storage vessel is part of that process unit.
- (A) If the greatest input on a volume basis into the storage vessel is from a process unit that is located on the same plant site, then that process unit has the predominant use.
- (B) If the greatest input on a volume basis into the storage vessel is provided from a process unit that is not located on the same plant site, then the predominant use shall be the process unit that receives the greatest amount of material on a volume basis from the storage vessel at the same plant site.
- (ii) If a storage vessel is shared among process units so that there is no single predominant use, and at least one of those process units is a petroleum refining process unit subject to this subpart, the storage vessel shall be considered to be part of the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the storage vessel to any of the petroleum refining process units subject to this subpart.
- (iii) If the predominant use of a storage vessel varies from year to year, then the applicability of this subpart shall be

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determined based on the utilization of that storage vessel during the year preceding August 18, 1995. This determination shall be reported as specified in §63.655(h)(6)(ii).

(f) The owner or operator of a distillation unit constructed on or before August 18, 1994, shall follow the procedures specified in paragraphs (f)(1) through (f)(4) of this section to determine whether a miscellaneous process vent from a distillation unit is part of a source to which this subpart applies. The owner or operator of a distillation unit constructed after August 18, 1994, shall follow the procedures specified in paragraphs (f)(1) through (f)(5) of this section to determine whether a miscellaneous process vent from a distillation unit is part of a source to which this subpart applies.

- (1) If the greatest input to the distillation unit is from a process unit located on the same plant site, then the distillation unit shall be assigned to that process unit.
- (2) If the greatest input to the distillation unit is provided from a process unit that is not located on the same plant site, then the distillation unit shall be assigned to the process unit located at the same plant site that receives the greatest amount of material from the distillation unit.
- (3) If a distillation unit is shared among process units so that there is no single predominant use, as described in paragraphs (f)(1) and (f)(2) of this section, and at least one of those process units is a petroleum refining process unit subject to this subpart, the distillation unit shall be assigned to the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the distillation unit to any of the petroleum refining process units subject to this rule.
- (4) If the process unit to which the distillation unit is assigned is a petroleum refining process unit subject to this subpart and the vent stream contains greater than 20 parts per million by volume total organic hazardous air pollutants, then the vent from the distillation unit is considered a miscellaneous process vent (as defined in §63.641 of this subpart) and is part of the source to which this subpart applies.
- (5) If the predominant use of a distillation unit varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that distillation unit during the year preceding August 18, 1995. This determination shall be reported as specified in §63.655(h)(6)(iii).

(g) The provisions of this subpart do not apply to the processes specified in paragraphs (g)(1) through (g)(7) of this section.

- (1) Research and development facilities, regardless of whether the facilities are located at the same plant site as a petroleum refining process unit that is subject to the provisions of this subpart;
  - (2) Equipment that does not contain any of the hazardous air pollutants listed in table 1 of this subpart that is located within a petroleum refining process unit that is subject to this subpart;
  - (3) Units processing natural gas liquids;
  - (4) Units that are used specifically for recycling discarded oil;
  - (5) Shale oil extraction units;
  - (6) Ethylene processes; and
  - (7) Process units and emission points subject to subparts F, G, H, and I of this part.
- (h) Sources subject to this subpart are required to achieve compliance on or before the dates specified in table 11 of this subpart, except as provided in paragraphs (h)(1) through (3) of this section.
- (1) Not applicable.
  - (2) Existing Group 1 floating roof storage vessels meeting the applicability criteria in item 1 of the definition of Group 1 storage vessel shall be in compliance with §63.646 at the first degassing and cleaning activity after August 18, 1998, or

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August 18, 2005, whichever is first.

(3) An owner or operator may elect to comply with the provisions of §63.648(c) through (i) as an alternative to the provisions of §63.648(a) and (b). In such cases, the owner or operator shall comply no later than the dates specified in paragraphs (h)(3)(i) through (iii) of this section.

(i) Phase I (see table 2 of this subpart), beginning on August 18, 1998;

(ii) Phase II (see table 2 of this subpart), beginning no later than August 18, 1999; and

(iii) Phase III (see table 2 of this subpart), beginning no later than February 18, 2001.

(i) If an additional petroleum refining process unit is added to a plant site that is a major source as defined in section 112(a) of the Clean Air Act, the addition shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (i)(1) through (i)(3) of this section:

(1) It is an addition that meets the definition of construction in §63.2 of subpart A of this part;

(2) Such construction commenced after July 14, 1994; and

(3) The addition has the potential to emit 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

(j) If any change is made to a petroleum refining process unit subject to this subpart, the change shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (j)(1) and (j)(2) of this section:

(1) It is a change that meets the definition of reconstruction in §63.2 of subpart A of this part; and

(2) Such reconstruction commenced after July 14, 1994.

(k) If an additional petroleum refining process unit is added to a plant site or a change is made to a petroleum refining process unit and the addition or change is determined to be subject to the new source requirements according to paragraphs (i) or (j) of this section it must comply with the requirements specified in paragraphs (k)(1) and (k)(2) of this section:

(1) The reconstructed source, addition, or change shall be in compliance with the new source requirements in item (1), (2), or (3) of table 11 of this subpart, as applicable, upon initial startup of the reconstructed source or by August 18, 1995, whichever is later; and

(2) The owner or operator of the reconstructed source, addition, or change shall comply with the reporting and recordkeeping requirements that are applicable to new sources. The applicable reports include, but are not limited to:

(i) The application for approval of construction or reconstruction shall be submitted as soon as practical before the construction or reconstruction is planned to commence (but it need not be sooner than November 16, 1995);

(ii) The Notification of Compliance Status report as required by §63.655(f) for a new source, addition, or change;

(iii) Periodic Reports and other reports as required by §63.655(g) and (h);

(iv) Reports and notifications required by §60.487 of subpart VV of part 60 or §63.182 of subpart H of this part. The requirements for subpart H are summarized in table 3 of this subpart;

(v) Reports required by 40 CFR 61.357 of subpart FF;

(vi) Reports and notifications required by §63.428(b), (c), (g)(1), (h)(1) through (h)(3), and (k) of subpart R. These requirements are summarized in table 4 of this subpart; and

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(vii) Reports and notifications required by §§63.565 and 63.567 of subpart Y of this part. These requirements are summarized in table 5 of this subpart.

(l) If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, gasoline loading rack, marine tank vessel loading operation, heat exchange system, or decoking operation that meets the criteria in paragraphs (c)(1) through (9) of this section is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emissions point(s) (as defined in §63.641) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to paragraph (i) or (j) of this section, the requirements in paragraphs (l)(1) through (4) of this section shall apply. Examples of process changes include, but are not limited to, changes in production capacity, or feed or raw material where the change requires construction or physical alteration of the existing equipment or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph (l) and paragraph (m) of this section, process changes do not include: Process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by §63.655(f).

(1) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

(2) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit shall be in compliance with the applicable requirements in item (4) of table 11 of this subpart by the dates specified in paragraph (l)(2)(i) or (ii) of this section.

(i) If a petroleum refining process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup of any added petroleum refining process unit or emission point(s) or by the applicable compliance date in item (4) of table 11 of this subpart, whichever is later.

(ii) If a deliberate operational process change to an existing petroleum refining process unit causes a Group 2 emission point to become a Group 1 emission point (as defined in §63.641), the owner or operator shall be in compliance upon initial startup or by August 18, 1998, whichever is later, unless the owner or operator demonstrates to the Administrator that achieving compliance will take longer than making the change. If this demonstration is made to the Administrator's satisfaction, the owner or operator shall follow the procedures in paragraphs (m)(1) through (m)(3) of this section to establish a compliance date.

(3) The owner or operator of a petroleum refining process unit or of a storage vessel, miscellaneous process vent, wastewater stream, gasoline loading rack, marine tank vessel loading operation, heat exchange system, or decoking operation meeting the criteria in paragraphs (c)(1) through (9) of this section that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and recordkeeping requirements that are applicable to existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (vii) of this section. A process change to an existing petroleum refining process unit shall be subject to the reporting requirements for existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (vii) of this section. The applicable reports include, but are not limited to:

(i) The Notification of Compliance Status report as required by §63.655(f) for the emission points that were added or changed;

(ii) Periodic Reports and other reports as required by §63.655(g) and (h);

(iii) Reports and notifications required by sections of subpart A of this part that are applicable to this subpart, as identified in table 6 of this subpart.

(iv) Reports and notifications required by §63.182, or 40 CFR 60.487. The requirements of subpart H of this part are summarized in table 3 of this subpart;

(v) Reports required by §61.357 of subpart FF;



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(vi) Reports and notifications required by §63.428(b), (c), (g)(1), (h)(1) through (h)(3), and (k) of subpart R. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by §§63.565 and 63.567 of subpart Y. These requirements are summarized in table 5 of this subpart.

(4) If pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, or instrumentation systems are added to an existing source, they are subject to the equipment leak standards for existing sources in §63.648. A notification of compliance status report shall not be required for such added equipment.

(m) If a change that does not meet the criteria in paragraph (l) of this section is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in §63.641), then the owner or operator shall comply with the applicable requirements of this subpart for existing sources, as specified in item (4) of table 11 of this subpart, for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.

(1) The owner or operator shall submit to the Administrator for approval a compliance schedule, along with a justification for the schedule.

(2) The compliance schedule shall be submitted within 180 days after the change is made, unless the compliance schedule has been previously submitted to the permitting authority. If it is not possible to determine until after the change is implemented whether the emission point has become Group 1, the compliance schedule shall be submitted within 180 days of the date when the affect of the change is known to the source. The compliance schedule may be submitted in the next Periodic Report if the change is made after the date the Notification of Compliance Status report is due.

(3) The Administrator shall approve or deny the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification. Approval is automatic if not received from the Administrator within 120 calendar days of receipt.

(n) Overlap of this subpart with other regulations for storage vessels. As applicable, paragraphs (n)(1), (3), (4), (6), and (7) of this section apply for Group 2 storage vessels and paragraphs (n)(2) and (5) of this section apply for Group 1 storage vessels.

(1) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the provisions of 40 CFR part 60, subpart Kb, is required to comply only with the requirements of 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section. After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the provisions of 40 CFR part 61, subpart Y, is required to comply only with the requirements of 40 CFR part 61, subpart Y, except as provided in paragraph (n)(10) of this section.

(2) After the compliance dates specified in paragraph (h) of this section, a Group 1 storage vessel that is also subject to 40 CFR part 60, subpart Kb, is required to comply only with either 40 CFR part 60, subpart Kb, except as provided in paragraph (n)(8) of this section or this subpart. After the compliance dates specified in paragraph (h) of this section, a Group 1 storage vessel that is also subject to 40 CFR part 61, subpart Y, is required to comply only with either 40 CFR part 61, subpart Y, except as provided in paragraph (n)(10) of this section or this subpart.

(3) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to 40 CFR 60.110b, but is not required to apply controls by 40 CFR 60.110b or 60.112b, is required to comply only with this subpart.

(4) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to 40 CFR 61.270, but is not required to apply controls by 40 CFR 61.271, is required to comply only with this subpart.

(5) After the compliance dates specified in paragraph (h) of this section, a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart K or Ka, is required to only comply with the provisions of this subpart.

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(6) After compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the control requirements of 40 CFR part 60, subparts K or Ka is required to comply only with the provisions of 40 CFR part 60, subparts K or Ka except as provided for in paragraph (n)(9) of this section.

(7) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to 40 CFR part 60, subparts K or Ka, but not to the control requirements of 40 CFR part 60, subparts K or Ka, is required to comply only with this subpart.

(8) Storage vessels described by paragraph (n)(1) of this section are to comply with 40 CFR part 60, subpart Kb, except as provided in paragraphs (n)(8)(i) through (vi) of this section. Storage vessels described by paragraph (n)(2) electing to comply with part 60, subpart Kb of this chapter shall comply with subpart Kb except as provided in paragraphs (n)(8)(i) through (viii) of this section.

(i) Storage vessels that are to comply with §60.112b(a)(2) of subpart Kb are exempt from the secondary seal requirements of §60.112b(a)(2)(i)(B) during the gap measurements for the primary seal required by §60.113b(b) of subpart Kb.

(ii) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in §60.113b(b) of this chapter or to inspect the vessel to determine compliance with §60.113b(a) of this chapter because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or (ii) of subpart G (only up to the compliance date specified in paragraph (h) of this section for compliance with §63.660, as applicable) or either §63.1063(c)(2)(iv)(A) or (B) of subpart WW.

(iii) If a failure is detected during the inspections required by §60.113b(a)(2) or during the seal gap measurements required by §60.113b(b)(1), and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Administrator.

(iv) If an extension is utilized in accordance with paragraph (n)(8)(iii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, provide the information listed in §60.113b(a)(2) or §60.113b(b)(4)(iii), and describe the nature and date of the repair made or provide the date the storage vessel was emptied.

(v) Owners and operators of storage vessels complying with subpart Kb of part 60 may submit the inspection reports required by §§60.115b(a)(3), (a)(4), and (b)(4) of subpart Kb as part of the periodic reports required by this subpart, rather than within the 30-day period specified in §§60.115b(a)(3), (a)(4), and (b)(4) of subpart Kb.

(vi) The reports of rim seal inspections specified in §60.115b(b)(2) are not required if none of the measured gaps or calculated gap areas exceed the limitations specified in §60.113b(b)(4). Documentation of the inspections shall be recorded as specified in §60.115b(b)(3).

(vii) To be in compliance with §60.112b(a)(1)(iv) or (a)(2)(ii) of this chapter, guidepoles in floating roof storage vessels must be equipped with covers and/or controls (e.g., pole float system, pole sleeve system, internal sleeve system or flexible enclosure system) as appropriate to comply with the “no visible gap” requirement.

(viii) If a flare is used as a control device for a storage vessel, on and after January 30, 2019, the owner or operator must meet the requirements of §63.670 instead of the requirements referenced from part 60, subpart Kb of this chapter for that flare.

(9) Storage vessels described by paragraph (n)(6) of this section that are to comply with 40 CFR part 60, subpart Ka, are to comply with only subpart Ka except as provided for in paragraphs (n)(9)(i) through (n)(9)(iv) of this section.

(i) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in §60.113a(a)(1) of this chapter because the floating roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or (ii) of subpart G (only up to the compliance date specified in paragraph (h) of this section for compliance with §63.660, as applicable) or either §63.1063(c)(2)(iv)(A) or (B) of subpart WW.

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- (ii) If a failure is detected during the seal gap measurements required by §60.113a(a)(1) of subpart Ka, and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each.
- (iii) If an extension is utilized in accordance with paragraph (n)(9)(ii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, describe the nature and date of the repair made or provide the date the storage vessel was emptied. The owner or operator shall also provide documentation of the decision to utilize an extension including a description of the failure, documentation that alternate storage capacity is unavailable, and a schedule of actions that will ensure that the control equipment will be repaired or the vessel emptied as soon as possible.
- (iv) Owners and operators of storage vessels complying with subpart Ka of part 60 may submit the inspection reports required by §60.113a(a)(1)(i)(E) of subpart Ka as part of the periodic reports required by this subpart, rather than within the 60-day period specified in §60.113a(a)(1)(i)(E) of subpart Ka.
- (10) Storage vessels described by paragraph (n)(1) of this section are to comply with 40 CFR part 61, subpart Y, except as provided in paragraphs (n)(10)(i) through (vi) of this section. Storage vessels described by paragraph (n)(2) electing to comply with 40 CFR part 61, subpart Y, shall comply with subpart Y except as provided for in paragraphs (n)(10)(i) through (vii) of this section.
- (i) Storage vessels that are to comply with §61.271(b) of this chapter are exempt from the secondary seal requirements of §61.271(b)(2)(ii) of this chapter during the gap measurements for the primary seal required by §61.272(b) of this chapter.
- (ii) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in §61.272(b) of this chapter or to inspect the vessel to determine compliance with §61.272(a) of this chapter because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or (ii) of subpart G (only up to the compliance date specified in paragraph (h) of this section for compliance with §63.660, as applicable) or either §63.1063(c)(2)(iv)(A) or (B) of subpart WW.
- (iii) If a failure is detected during the inspections required by §61.272(a)(2) of this chapter or during the seal gap measurements required by §61.272(b)(1) of this chapter, and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Administrator.
- (iv) If an extension is utilized in accordance with paragraph (n)(10)(iii) of this section, the owner or operator shall, in the next periodic report, identify the vessel, provide the information listed in §61.272(a)(2) or (b)(4)(iii) of this chapter, and describe the nature and date of the repair made or provide the date the storage vessel was emptied.
- (v) Owners and operators of storage vessels complying with 40 CFR part 61, subpart Y, may submit the inspection reports required by §61.275(a), (b)(1), and (d) of this chapter as part of the periodic reports required by this subpart, rather than within the 60-day period specified in §61.275(a), (b)(1), and (d) of this chapter.
- (vi) The reports of rim seal inspections specified in §61.275(d) of this chapter are not required if none of the measured gaps or calculated gap areas exceed the limitations specified in §61.272(b)(4) of this chapter. Documentation of the inspections shall be recorded as specified in §61.276(a) of this chapter.
- (vii) To be in compliance with §61.271(a)(6) or (b)(3) of this chapter, guidepoles in floating roof storage vessels must be equipped with covers and/or controls (e.g., pole float system, pole sleeve system, internal sleeve system or flexible enclosure system) as appropriate to comply with the “no visible gap” requirement.
- (viii) If a flare is used as a control device for a storage vessel, on and after January 30, 2019, the owner or operator must meet the requirements of §63.670 instead of the requirements referenced from part 61, subpart Y of this chapter for that flare.
- (o) Overlap of this subpart CC with other regulations for wastewater.
- (1) After the compliance dates specified in paragraph (h) of this section a Group 1 wastewater stream managed in a piece

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of equipment that is also subject to the provisions of 40 CFR part 60, subpart QQQ is required to comply only with this subpart.

(2) After the compliance dates specified in paragraph (h) of this section a Group 1 or Group 2 wastewater stream that is conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of §§63.133 through 63.147 of subpart G wastewater provisions of this part shall comply as specified in paragraph (o)(2)(i) or (o)(2)(ii) of this section. Compliance with the provisions of paragraph (o)(2) of this section shall constitute compliance with the requirements of this subpart for that wastewater stream.

(i) Comply with paragraphs (o)(2)(i)(A) through (D) of this section.

(A) The provisions in §§63.133 through 63.140 of subpart G for all equipment used in the storage and conveyance of the Group 1 or Group 2 wastewater stream.

(B) The provisions in both 40 CFR part 61, subpart FF and in §§63.138 and 63.139 of subpart G for the treatment and control of the Group 1 or Group 2 wastewater stream.

(C) The provisions in §§63.143 through 63.148 of subpart G for monitoring and inspections of equipment and for recordkeeping and reporting requirements. The owner or operator is not required to comply with the monitoring, recordkeeping, and reporting requirements associated with the treatment and control requirements in 40 CFR part 61, subpart FF, §§61.355 through 61.357.

(D) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of 40 CFR part 61, subpart FF, and subpart G of this part, or the requirements of §63.670.

(ii) Comply with paragraphs (o)(2)(ii)(A) through (C) of this section.

(A) Comply with the provisions of §§63.133 through 63.148 and §§63.151 and 63.152 of subpart G.

(B) For any Group 2 wastewater stream or organic stream whose benzene emissions are subject to control through the use of one or more treatment processes or waste management units under the provisions of 40 CFR part 61, subpart FF on or after December 31, 1992, comply with the requirements of §63.133 through §63.147 of subpart G for Group 1 wastewater streams.

(C) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of 40 CFR part 61, subpart FF, and subpart G of this part, or the requirements of §63.670.

(p) Overlap of subpart CC with other regulations for equipment leaks.

(1) After the compliance dates specified in paragraph (h) of this section, equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 standards promulgated before September 4, 2007, are required to comply only with the provisions specified in this subpart.

(2) Equipment leaks that are also subject to the provisions of 40 CFR part 60, subpart GGGa, are required to comply only with the provisions specified in 40 CFR part 60, subpart GGGa.

(q) For overlap of subpart CC with local or State regulations, the permitting authority for the affected source may allow consolidation of the monitoring, recordkeeping, and reporting requirements under this subpart with the monitoring, recordkeeping, and reporting requirements under other applicable requirements in 40 CFR parts 60, 61, or 63, and in any 40 CFR part 52 approved State implementation plan provided the implementation plan allows for approval of alternative monitoring, reporting, or recordkeeping requirements and provided that the permit contains an equivalent degree of compliance and control.

(r) Overlap of subpart CC with other regulations for gasoline loading racks. After the compliance dates specified in

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paragraph (h) of this section, a Group 1 gasoline loading rack that is part of a source subject to subpart CC and also is subject to the provisions of 40 CFR part 60, subpart XX is required to comply only with this subpart.

(s) Overlap of this subpart with other regulation for flares. On January 30, 2019, flares that are subject to the provisions of 40 CFR 60.18 or 63.11 and subject to this subpart are required to comply only with the provisions specified in this subpart. Prior to January 30, 2019, flares that are subject to the provisions of 40 CFR 60.18 or 63.11 and elect to comply with the requirements in §§63.670 and 63.671 are required to comply only with the provisions specified in this subpart.

[60 FR 43260, Aug. 18, 1995; 61 FR 7051, Feb. 23, 1996, as amended at 61 FR 29878, June 12, 1996; 63 FR 44140, Aug. 18, 1998; 66 FR 28841, May 25, 2001; 74 FR 55683, Oct. 28, 2009; 78 FR 37145, June 20, 2013; 80 FR 75237, Dec. 1, 2015]

**# 072 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
General standards.**

- (a) Each owner or operator of a source subject to this subpart is required to apply for a part 70 or part 71 operating permit from the appropriate permitting authority. If the EPA has approved a State operating permit program under part 70, the permit shall be obtained from the State authority. If the State operating permit program has not been approved, the source shall apply to the EPA Regional Office pursuant to part 71.
- (b) The emission standards set forth in this subpart shall apply at all times.
- (c) Table 6 of this subpart specifies the provisions of subpart A of this part that apply and those that do not apply to owners and operators of sources subject to this subpart.
- (d) Initial performance tests and initial compliance determinations shall be required only as specified in this subpart.
- (1) Performance tests and compliance determinations shall be conducted according to the schedule and procedures specified in this subpart.
- (2) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 days before the performance test is scheduled.
- (3) Performance tests shall be conducted according to the provisions of §63.7(e) except that performance tests shall be conducted at maximum representative operating capacity for the process. During the performance test, an owner or operator shall operate the control device at either maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction. An owner or operator shall not conduct a performance test during startup, shutdown, periods when the control device is bypassed or periods when the process, monitoring equipment or control device is not operating properly. The owner/operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that the test was conducted at maximum representative operating capacity. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
- (4) Data shall be reduced in accordance with the EPA-approved methods specified in the applicable section or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of appendix A of this part.
- (e) All applicable records shall be maintained as specified in §63.655(i).
- (f) All reports required under this subpart shall be sent to the Administrator at the addresses listed in §63.13 of subpart A of this part. If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.
- (g) The owner or operator of an existing source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the following equation:

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$$EA = 0.02S EPV1 + S EPV2 + 0.05S ES1 + S ES2 + S EGLR1C + S EGLR2 + (R) S EMV1 + S EMV2 + S EWW1C + S EWW2$$

where:

S = Summation sum of all values in range of series.

EA = Emission rate, megagrams per year, allowed for the source.

0.02S EPV1 = Sum of the residual emissions, megagrams per year, from all Group 1 miscellaneous process vents, as defined in §63.641.

S EPV2 = Sum of the emissions, megagrams per year, from all Group 2 process vents, as defined in §63.641.

0.05S ES1 = Sum of the residual emissions, megagrams per year, from all Group 1 storage vessels, as defined in §63.641.

S ES2 = Sum of the emissions, megagrams per year, from all Group 2 storage vessels, as defined in §63.641.

S EGLR1C = Sum of the residual emissions, megagrams per year, from all Group 1 gasoline loading racks, as defined in §63.641.

S EGLR2 = Sum of the emissions, megagrams per year, from all Group 2 gasoline loading racks, as defined in §63.641.

(R)S EMV1 = Sum of the residual emissions megagrams per year, from all Group 1 marine tank vessels, as defined in §63.641.

R = 0.03 for existing sources, 0.02 for new sources.

S EMV2 = Sum of the emissions, megagrams per year from all Group 2 marine tank vessels, as defined in §63.641.

S EWW1C = Sum of the residual emissions from all Group 1 wastewater streams, as defined in §63.641. This term is calculated for each Group 1 stream according to the equation for EWWic in §63.652(h)(6).

S EWW2 = Sum of emissions from all Group 2 wastewater streams, as defined in §63.641.

The emissions level represented by this equation is dependent on the collection of emission points in the source. The level is not fixed and can change as the emissions from each emission point change or as the number of emission points in the source changes.

(h) The owner or operator of a new source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the equation in paragraph (g) of this section.

(i) The owner or operator of an existing source shall demonstrate compliance with the emission standard in paragraph (g) of this section by following the procedures specified in paragraph (k) of this section for all emission points, or by following the emissions averaging compliance approach specified in paragraph (l) of this section for specified emission points and the procedures specified in paragraph (k)(1) of this section.

(j) The owner or operator of a new source shall demonstrate compliance with the emission standard in paragraph (h) of this section only by following the procedures in paragraph (k) of this section. The owner or operator of a new source may not use the emissions averaging compliance approach.

(k) The owner or operator of an existing source may comply, and the owner or operator of a new source shall comply, with the applicable provisions in §§63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as specified in §63.640(h).

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(1) The owner or operator using this compliance approach shall also comply with the requirements of §§63.648 and/or 63.649, 63.654, 63.655, 63.657, 63.658, 63.670 and 63.671, as applicable.

(2) The owner or operator using this compliance approach is not required to calculate the annual emission rate specified in paragraph (g) of this section.

(l) The owner or operator of an existing source may elect to control some of the emission points within the source to different levels than specified under §§63.643 through 63.645, 63.646 or 63.660, 63.647, 63.650, and 63.651, as applicable according to §63.640(h), by using an emissions averaging compliance approach as long as the overall emissions for the source do not exceed the emission level specified in paragraph (g) of this section. The owner or operator using emissions averaging shall meet the requirements in paragraphs (l)(1) and (2) of this section.

(1) Calculate emission debits and credits for those emission points involved in the emissions average according to the procedures specified in §63.652; and

(2) Comply with the requirements of §§63.648 and/or 63.649, 63.654, 63.652, 63.653, 63.655, 63.657, 63.658, 63.670 and 63.671, as applicable.

(m) A State may restrict the owner or operator of an existing source to using only the procedures in paragraph (k) of this section to comply with the emission standard in paragraph (g) of this section. Such a restriction would preclude the source from using an emissions averaging compliance approach.

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

[60 FR 43260, Aug. 18, 1995; 61 FR 7051, Feb. 23, 1996, as amended at 61 FR 29879, June 12, 1996; 74 FR 55685, Oct. 28, 2009; 80 FR 75242, Dec. 1, 2015]

**# 073 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.647]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Wastewater provisions.**

(a) Except as provided in paragraphs (b) and (c) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of this chapter for each process wastewater stream that meets the definition in §63.641.

(b) As used in this section, all terms not defined in §63.641 shall have the meaning given them in the Clean Air Act or in 40 CFR part 61, subpart FF, §61.341.

(c) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of part 61, subpart FF of this chapter, or the requirements of §63.670.

(d) Each owner or operator required under subpart FF of 40 CFR part 61 to perform periodic measurement of benzene concentration in wastewater, or to monitor process or control device operating parameters shall operate in a manner consistent with the minimum or maximum (as appropriate) permitted concentration or operating parameter values. Operation of the process, treatment unit, or control device resulting in a measured concentration or operating parameter value outside the permitted limits shall constitute a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in subpart FF of 40 CFR part 61 shall constitute a violation of the standard.

[60 FR 43260, Aug. 18, 1995, as amended at 80 FR 75244, Dec. 1, 2015]

**SECTION C. Site Level Requirements****# 074 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Equipment leak standards.**

(a) Each owner or operator of an existing source subject to the provisions of this subpart shall comply with the provisions of 40 CFR part 60, subpart VV, and paragraph (b) of this section except as provided in paragraphs (a)(1) and (2), (c) through (i), and (j)(1) and (2) of this section. Each owner or operator of a new source subject to the provisions of this subpart shall comply with subpart H of this part except as provided in paragraphs (c) through (i) and (j)(1) and (2) of this section.

(1) For purposes of compliance with this section, the provisions of 40 CFR part 60, subpart VV apply only to equipment in organic HAP service, as defined in §63.641 of this subpart.

(2) Calculation of percentage leaking equipment components for subpart VV of 40 CFR part 60 may be done on a process unit basis or a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(3) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of part 60, subpart VV of this chapter, or the requirements of §63.670.

(b) The use of monitoring data generated before August 18, 1995 to qualify for less frequent monitoring of valves and pumps as provided under 40 CFR part 60 subpart VV or subpart H of this part and paragraph (c) of this section (i.e., quarterly or semiannually) is governed by the requirements of paragraphs (b)(1) and (b)(2) of this section.

(1) Monitoring data must meet the test methods and procedures specified in §60.485(b) of 40 CFR part 60, subpart VV or §63.180(b)(1) through (b)(5) of subpart H of this part except for minor departures.

(2) Departures from the criteria specified in §60.485(b) of 40 CFR part 60 subpart VV or §63.180(b)(1) through (b)(5) of subpart H of this part or from the monitoring frequency specified in subpart VV or in paragraph (c) of this section (such as every 6 weeks instead of monthly or quarterly) are minor and do not significantly affect the quality of the data. An example of a minor departure is monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly). Failure to use a calibrated instrument is not considered a minor departure.

(c) In lieu of complying with the existing source provisions of paragraph (a) in this section, an owner or operator may elect to comply with the requirements of §§63.161 through 63.169, 63.171, 63.172, 63.175, 63.176, 63.177, 63.179, and 63.180 of subpart H except as provided in paragraphs (c)(1) through (12) and (e) through (i) of this section.

(1) The instrument readings that define a leak for light liquid pumps subject to §63.163 of subpart H of this part and gas/vapor and light liquid valves subject to §63.168 of subpart H of this part are specified in table 2 of this subpart.

(2) In phase III of the valve standard, the owner or operator may monitor valves for leaks as specified in paragraphs (c)(2)(i) or (c)(2)(ii) of this section.

(i) If the owner or operator does not elect to monitor connectors, then the owner or operator shall monitor valves according to the frequency specified in table 8 of this subpart.

(ii) If an owner or operator elects to monitor connectors according to the provisions of §63.649, paragraphs (b), (c), or (d), then the owner or operator shall monitor valves at the frequencies specified in table 9 of this subpart.

(3) The owner or operator shall decide no later than the first required monitoring period after the phase I compliance date specified in §63.640(h) whether to calculate the percentage leaking valves on a process unit basis or on a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(4) The owner or operator shall decide no later than the first monitoring period after the phase III compliance date specified in §63.640(h) whether to monitor connectors according to the provisions in §63.649, paragraphs (b), (c), or (d).



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(5) Connectors in gas/vapor service or light liquid service are subject to the requirements for connectors in heavy liquid service in §63.169 of subpart H of this part (except for the agitator provisions). The leak definition for valves, connectors, and instrumentation systems subject to §63.169 is 1,000 parts per million.

(6) In phase III of the pump standard, except as provided in paragraph (c)(7) of this section, owners or operators that achieve less than 10 percent of light liquid pumps leaking or three light liquid pumps leaking, whichever is greater, shall monitor light liquid pumps monthly.

(7) Owners or operators that achieve less than 3 percent of light liquid pumps leaking or one light liquid pump leaking, whichever is greater, shall monitor light liquid pumps quarterly.

(8) An owner or operator may make the election described in paragraphs (c)(3) and (c)(4) of this section at any time except that any election to change after the initial election shall be treated as a permit modification according to the terms of part 70 of this chapter.

(9) When complying with the requirements of §63.168(e)(3)(i), non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and non-repairable. Otherwise, a number of non-repairable valves up to a maximum of 1 percent per year of the total number of valves in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percent leaking valves for subsequent monitoring periods. When the number of non-repairable valves exceeds 3 percent of the total number of valves in organic HAP service, the number of non-repairable valves exceeding 3 percent of the total number shall be included in the calculation of percent leaking valves.

(10) If in phase III of the valve standard any valve is designated as being leakless, the owner or operator has the option of following the provisions of 40 CFR 60.482-7(f). If an owner or operator chooses to comply with the provisions of 40 CFR 60.482-7(f), the valve is exempt from the valve monitoring provisions of §63.168 of subpart H of this part.

(11) [Reserved]

(12) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of §§63.172 and 63.180, or the requirements of §63.670.

(d) Upon startup of new sources, the owner or operator shall comply with §63.163(a)(1)(ii) of subpart H of this part for light liquid pumps and §63.168(a)(1)(ii) of subpart H of this part for gas/vapor and light liquid valves.

(e) For reciprocating pumps in heavy liquid service and agitators in heavy liquid service, owners and operators are not required to comply with the requirements in §63.169 of subpart H of this part.

(f) Reciprocating pumps in light liquid service are exempt from §§63.163 and 60.482 if recasting the distance piece or reciprocating pump replacement is required.

(g) Compressors in hydrogen service are exempt from the requirements of paragraphs (a) and (c) of this section if an owner or operator demonstrates that a compressor is in hydrogen service.

(1) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service.

(2) For a piece of equipment to be considered in hydrogen service, it must be determined that the percentage hydrogen content can be reasonably expected always to exceed 50 percent by volume.

(i) For purposes of determining the percentage hydrogen content in the process fluid that is contained in or contacts a compressor, the owner or operator shall use either:

(A) Procedures that conform to those specified in §60.593(b)(2) of 40 part 60, subpart GGG.

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(B) Engineering judgment to demonstrate that the percentage content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume.

(1) When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, the procedures in paragraph (g)(2)(i)(A) of this section shall be used to resolve the disagreement.

(2) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only by following the procedures in paragraph (g)(2)(i)(A) of this section.

(h) Each owner or operator of a source subject to the provisions of this subpart must maintain all records for a minimum of 5 years.

(i) Reciprocating compressors are exempt from seal requirements if recasting the distance piece or compressor replacement is required.

(j) Except as specified in paragraph (j)(4) of this section, the owner or operator must comply with the requirements specified in paragraphs (j)(1) and (2) of this section for pressure relief devices, such as relief valves or rupture disks, in organic HAP gas or vapor service instead of the pressure relief device requirements of §60.482-4 or §63.165, as applicable. Except as specified in paragraphs (j)(4) and (5) of this section, the owner or operator must also comply with the requirements specified in paragraph (j)(3) of this section for all pressure relief devices.

(1) Operating requirements. Except during a pressure release, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 CFR part 60, appendix A-7.

(2) Pressure release requirements. For pressure relief devices in organic HAP gas or vapor service, the owner or operator must comply with the applicable requirements in paragraphs (j)(2)(i) through (iii) of this section following a pressure release.

(i) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as specified in §60.485(b) or §63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(ii) If the pressure relief device includes a rupture disk, either comply with the requirements in paragraph (j)(2)(i) of this section (not replacing the rupture disk) or install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The owner or operator must conduct instrument monitoring, as specified in §60.485(b) or §63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(iii) If the pressure relief device consists only of a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The owner or operator may not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced. The owner or operator must conduct instrument monitoring, as specified in §60.485(b) or §63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(3) Pressure release management. Except as specified in paragraphs (j)(4) and (5) of this section, the owner or operator shall comply with the requirements specified in paragraphs (j)(3)(i) through (v) of this section for all pressure relief devices in organic HAP service no later than January 30, 2019.

(i) The owner or operator must equip each affected pressure relief device with a device(s) or use a monitoring system that is capable of:

(A) Identifying the pressure release;

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(B) Recording the time and duration of each pressure release; and

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

(ii) The owner or operator must apply at least three redundant prevention measures to each affected pressure relief device and document these measures. Examples of prevention measures include:

(A) Flow, temperature, level and pressure indicators with deadman switches, monitors, or automatic actuators.

(B) Documented routine inspection and maintenance programs and/or operator training (maintenance programs and operator training may count as only one redundant prevention measure).

(C) Inherently safer designs or safety instrumentation systems.

(D) Deluge systems.

(E) Staged relief system where initial pressure relief valve (with lower set release pressure) discharges to a flare or other closed vent system and control device.

(iii) If any affected pressure relief device releases to atmosphere as a result of a pressure release event, the owner or operator must perform root cause analysis and corrective action analysis according to the requirement in paragraph (j)(6) of this section and implement corrective actions according to the requirements in paragraph (j)(7) of this section. The owner or operator must also calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in §63.655(g)(10)(iii). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(iv) The owner or operator shall determine the total number of release events occurred during the calendar year for each affected pressure relief device separately. The owner or operator shall also determine the total number of release events for each pressure relief device for which the root cause analysis concluded that the root cause was a force majeure event, as defined in this subpart.

(v) Except for pressure relief devices described in paragraphs (j)(4) and (5) of this section, the following release events are a violation of the pressure release management work practice standards.

(A) Any release event for which the root cause of the event was determined to be operator error or poor maintenance.

(B) A second release event not including force majeure events from a single pressure relief device in a 3 calendar year period for the same root cause for the same equipment.

(C) A third release event not including force majeure events from a single pressure relief device in a 3 calendar year period for any reason.

(4) Pressure relief devices routed to a control device. If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, back into the process or to the fuel gas system, the owner or operator is not required to comply with paragraph (j)(1), (2), or (3) (if applicable) of this section. Both the closed vent system and control device (if applicable) must meet the requirements of §63.644. When complying with this paragraph (j)(4), all references to "Group 1 miscellaneous process vent" in §63.644 mean "pressure relief device." If a pressure relief device complying with this paragraph (j)(4) is routed to the fuel gas system, then on and after January 30, 2019, any flares receiving gas from that fuel gas system must be in compliance with §63.670.

(5) Pressure relief devices exempted from pressure release management requirements. The following types of

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pressure relief devices are not subject to the pressure release management requirements in paragraph (j)(3) of this section.

(i) Pressure relief devices in heavy liquid service, as defined in §63.641.

(ii) Pressure relief devices that only release material that is liquid at standard conditions (1 atmosphere and 68 degrees Fahrenheit) and that are hard-piped to a controlled drain system (i.e., a drain system meeting the requirements for Group 1 wastewater streams in §63.647(a)) or piped back to the process or pipeline.

(iii) Thermal expansion relief valves.

(iv) Pressure relief devices designed with a set relief pressure of less than 2.5 psig.

(v) Pressure relief devices that do not have the potential to emit 72 lbs/day or more of VOC based on the valve diameter, the set release pressure, and the equipment contents.

(vi) Pressure relief devices on mobile equipment.

(6) Root cause analysis and corrective action analysis. A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a release event. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in paragraphs (j)(6)(i) through (iv) of this section.

(i) You may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices installed on the same equipment to release.

(ii) You may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices to release, regardless of the equipment served, if the root cause is reasonably expected to be a force majeure event, as defined in this subpart.

(iii) Except as provided in paragraphs (j)(6)(i) and (ii) of this section, if more than one pressure relief device has a release during the same time period, an initial root cause analysis shall be conducted separately for each pressure relief device that had a release. If the initial root cause analysis indicates that the release events have the same root cause(s), the initially separate root cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

(7) Corrective action implementation. Each owner or operator required to conduct a root cause analysis and corrective action analysis as specified in paragraphs (j)(3)(iii) and (j)(6) of this section shall implement the corrective action(s) identified in the corrective action analysis in accordance with the applicable requirements in paragraphs (j)(7)(i) through (iii) of this section.

(i) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that no corrective action should be implemented, the owner or operator shall record and explain the basis for that conclusion no later than 45 days following the event.

(ii) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, the owner or operator shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(iii) No later than 45 days following the event for which a root cause and corrective action analyses were required, the owner or operator shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 63 FR 44141, Aug. 18, 1998; 80 FR 75244, Dec. 1, 2015; 81 FR 45241, July 13, 2016]

**SECTION C. Site Level Requirements****# 075 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.649]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Alternative means of emission limitation: Connectors in gas/vapor service and light liquid service.**

This condition is applicable to Source ID: 206, 302, and 303.

(a) If an owner or operator elects to monitor valves according to the provisions of 63.648(c)(2)(ii), the owner or operator shall implement one of the connector monitoring programs specified in paragraphs (b), (c), or (d) of this section.

(b) Random 200 connector alternative. The owner or operator shall implement a random sampling program for accessible connectors of 2.0 inches nominal diameter or greater. The program does not apply to inaccessible or unsafe-to-monitor connectors, as defined in 63.174 of subpart H. The sampling program shall be implemented source-wide.

(1) Within the first 12 months after the phase III compliance date specified in 63.640(h), a sample of 200 connectors shall be randomly selected and monitored using Method 21 of 40 CFR part 60, appendix A.

(2) The instrument reading that defines a leak is 1,000 parts per million.

(3) 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 paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, the connector shall be monitored for leaks within the first 3 months after its repair.

(5) After conducting the initial survey required in paragraph (b)(1) of this section, the owner or operator shall conduct subsequent monitoring of connectors at the frequencies specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall survey a random sample of 200 connectors once every 6 months.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall survey a random sample of 200 connectors once per year.

(iii) If the percentage leaking connectors is 0.5 percent or greater but less than 1.0 percent, the owner or operator shall survey a random sample of 200 connectors once every 2 years.

(iv) If the percentage leaking connectors is less than 0.5 percent, the owner or operator shall survey a random sample of 200 connectors once every 4 years.

(6) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(c) Connector inspection alternative. The owner or operator shall implement a program to monitor all accessible connectors in gas/vapor service that are 2.0 inches (nominal diameter) or greater and inspect all accessible connectors in light liquid service that are 2 inches (nominal diameter) or greater as described in paragraphs (c)(1) through (c)(7) of this section. The program does not apply to inaccessible or unsafe-to-monitor connectors.

(1) Within 12 months after the phase III compliance date specified in 63.640(h), all connectors in gas/vapor service shall be monitored using Method 21 of 40 CFR part 60 appendix A. The instrument reading that defines a leak is 1,000 parts per million.

(2) All connectors in light liquid service shall be inspected for leaks. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(3) 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 paragraph (e) of this section. A first attempt at repair shall be made no later than 5

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calendar days after the leak is detected.

(4) If a leak is detected, connectors in gas/vapor service shall be monitored for leaks within the first 3 months after repair. Connectors in light liquid service shall be inspected for indications of leaks within the first 3 months after repair. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(5) After conducting the initial survey required in paragraphs (c)(1) and (c)(2) of this section, the owner or operator shall conduct subsequent monitoring at the frequencies specified in paragraphs (c)(5)(i) through (c)(5)(iii) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall monitor or inspect, as applicable, the connectors once per year.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 2 years.

(iii) If the percentage leaking connectors is less than 1.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 4 years.

(6) The percentage leaking connectors shall be calculated for connectors in gas/vapor service and for connectors in light liquid service. The data for the two groups of connectors shall not be pooled for the purpose of determining the percentage leaking connectors.

(i) The percentage leaking connectors shall be calculated as follows:

$$\% \text{ CL} = [(CL - CAN) / (Ct + Cc)] \times 100$$

where:

% CL = Percentage leaking connectors.

CL = Number of connectors including nonrepairables, measured at 1,000 parts per million or greater, by Method 21 of 40 CFR part 60, Appendix A.

CAN = Number of allowable nonrepairable connectors, as determined by monitoring, not to exceed 3 percent of the total connector population, Ct.

Ct = Total number of monitored connectors, including nonrepairables, in the process unit.

Cc = Optional credit for removed connectors =  $0.67 \times \text{net number}$  (i.e., the total number of connectors removed minus the total added) of connectors in organic HAP service removed from the process unit after the applicability date set forth in 63.640(h)(4)(iii) for existing process units, and after the date of start-up for new process units. If credits are not taken, then Cc = 0.

(ii) Nonrepairable connectors shall be included in the calculation of percentage leaking connectors the first time the connector is identified as leaking and nonrepairable. Otherwise, a number of nonrepairable connectors up to a maximum of 1 percent per year of the total number of connectors in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percentage leaking connectors for subsequent monitoring periods.

(iii) If the number of nonrepairable connectors exceeds 3 percent of the total number of connectors in organic HAP service, the number of nonrepairable connectors exceeding 3 percent of the total number shall be included in the calculation of the percentage leaking connectors.

(7) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(d) Subpart H program. The owner or operator shall implement a program to comply with the provisions in 63.174 of this

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part.

(e) Delay of repair of connectors for which leaks have been detected is allowed if repair is not technically feasible by normal repair techniques without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(1) Delay of repair is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

(2) Delay of repair for connectors is also allowed if:

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are accomplished, the purged material would be collected and destroyed or recovered in a control device.

(f) Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), or (d) of this section if:

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), of this section; or

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(g) The owner or operator shall maintain records to document that the connector monitoring or inspections have been conducted as required and to document repair of leaking connectors as applicable.

[60 FR 43260, Aug. 18, 1995, as amended at 80 FR 75245, Dec. 1, 2015]

**# 076 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Heat exchange systems.**

(a) Except as specified in paragraph (b) of this section, the owner or operator of a heat exchange system that meets the criteria in §63.640(c)(8) must comply with the requirements of paragraphs (c) through (g) of this section.

(b) A heat exchange system is exempt from the requirements in paragraphs (c) through (g) of this section if all heat exchangers within the heat exchange system either:

(1) Operate with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side; or

(2) Employ an intervening cooling fluid containing less than 5 percent by weight of total organic HAP, as determined according to the provisions of §63.180(d) of this part and table 1 of this subpart, between the process and the cooling water. This intervening fluid must serve to isolate the cooling water from the process fluid and must not be sent through a cooling tower or discharged. For purposes of this section, discharge does not include emptying for maintenance purposes.

(c) The owner or operator must perform monitoring to identify leaks of total strippable volatile organic compounds (VOC) from each heat exchange system subject to the requirements of this subpart according to the procedures in paragraphs (c)(1) through (6) of this section.

(1) Monitoring locations for closed-loop recirculation heat exchange systems. For each closed loop recirculating heat exchange system, collect and analyze a sample from the location(s) described in either paragraph (c)(1)(i) or (c)(1)(ii) of this section.

(i) Each cooling tower return line or any representative riser within the cooling tower prior to exposure to air for each heat

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exchange system.

(ii) Selected heat exchanger exit line(s) so that each heat exchanger or group of heat exchangers within a heat exchange system is covered by the selected monitoring location(s).

(2) Not applicable (facility does not have any once-through heat exchange systems)

(3) Monitoring method. Determine the total strippable hydrocarbon concentration (in parts per million by volume (ppmv) as methane) at each monitoring location using the "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources" Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see §63.14) using a flame ionization detector (FID) analyzer for on-site determination as described in Section 6.1 of the Modified El Paso Method.

(4) Monitoring frequency and leak action level for existing sources. For a heat exchange system at an existing source, the owner or operator must comply with the monitoring frequency and leak action level as defined in paragraph (c)(4)(i) of this section or comply with the monitoring frequency and leak action level as defined in paragraph (c)(4)(ii) of this section. The owner or operator of an affected heat exchange system may choose to comply with paragraph (c)(4)(i) of this section for some heat exchange systems at the petroleum refinery and comply with paragraph (c)(4)(ii) of this section for other heat exchange systems. However, for each affected heat exchange system, the owner or operator of an affected heat exchange system must elect one monitoring alternative that will apply at all times. If the owner or operator intends to change the monitoring alternative that applies to a heat exchange system, the owner or operator must notify the Administrator 30 days in advance of such a change. All "leaks" identified prior to changing monitoring alternatives must be repaired. The monitoring frequencies specified in paragraphs (c)(4)(i) and (ii) of this section also apply to the inlet water feed line for a once-through heat exchange system, if monitoring of the inlet water feed is elected as provided in paragraph (c)(2)(ii) of this section.

(i) Monitor monthly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 6.2 ppmv.

(ii) Monitor quarterly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 3.1 ppmv unless repair is delayed as provided in paragraph (f) of this section. If a repair is delayed as provided in paragraph (f) of this section, monitor monthly.

(5) Monitoring frequency and leak action level for new sources. For a heat exchange system at a new source, the owner or operator must monitor monthly using a leak action level defined as a total strippable hydrocarbon concentration (as methane) in the stripping gas of 3.1 ppmv.

(6) Leak definition. A leak is defined as described in paragraph (c)(6)(i) or (c)(6)(ii) of this section, as applicable.

(i) Not applicable (facility does not have any once-through heat exchange systems)

(ii) For all other heat exchange systems, a leak is detected if a measurement value of the sample taken from a location specified in either paragraph (c)(1)(i), (c)(1)(ii), or (c)(2)(i) of this section equals or exceeds the leak action level.

(d) If a leak is detected, the owner or operator must repair the leak to reduce the measured concentration to below the applicable action level as soon as practicable, but no later than 45 days after identifying the leak, except as specified in paragraphs (e) and (f) of this section. Repair includes re-monitoring at the monitoring location where the leak was identified according to the method specified in paragraph (c)(3) of this section to verify that the measured concentration is below the applicable action level. Actions that can be taken to achieve repair include but are not limited to:

(1) Physical modifications to the leaking heat exchanger, such as welding the leak or replacing a tube;

(2) Blocking the leaking tube within the heat exchanger;

(3) Changing the pressure so that water flows into the process fluid;



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- (4) Replacing the heat exchanger or heat exchanger bundle; or
- (5) Isolating, bypassing, or otherwise removing the leaking heat exchanger from service until it is otherwise repaired.
- (e) If the owner or operator detects a leak when monitoring a cooling tower return line under paragraph (c)(1)(i) of this section, the owner or operator may conduct additional monitoring of each heat exchanger or group of heat exchangers associated with the heat exchange system for which the leak was detected as provided under paragraph (c)(1)(ii) of this section. If no leaks are detected when monitoring according to the requirements of paragraph (c)(1)(ii) of this section, the heat exchange system is considered to meet the repair requirements through re-monitoring of the heat exchange system as provided in paragraph (d) of this section.
- (f) The owner or operator may delay the repair of a leaking heat exchanger when one of the conditions in paragraph (f)(1) or (f)(2) of this section is met and the leak is less than the delay of repair action level specified in paragraph (f)(3) of this section. The owner or operator must determine if a delay of repair is necessary as soon as practicable, but no later than 45 days after first identifying the leak.
- (1) If the repair is technically infeasible without a shutdown and the total strippable hydrocarbon concentration is initially and remains less than the delay of repair action level for all monthly monitoring periods during the delay of repair, the owner or operator may delay repair until the next scheduled shutdown of the heat exchange system. If, during subsequent monthly monitoring, the delay of repair action level is exceeded, the owner or operator must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.
- (2) If the necessary equipment, parts, or personnel are not available and the total strippable hydrocarbon concentration is initially and remains less than the delay of repair action level for all monthly monitoring periods during the delay of repair, the owner or operator may delay the repair for a maximum of 120 calendar days. The owner or operator must demonstrate that the necessary equipment, parts, or personnel were not available. If, during subsequent monthly monitoring, the delay of repair action level is exceeded, the owner or operator must repair the leak within 30 days of the monitoring event in which the leak was equal to or exceeded the delay of repair action level.
- (3) The delay of repair action level is a total strippable hydrocarbon concentration (as methane) in the stripping gas of 62 ppmv. The delay of repair action level is assessed as described in paragraph (f)(3)(i) or (f)(3)(ii) of this section, as applicable.
- (i) Not applicable (facility does not have any once-through heat exchange systems)
- (ii) For all other heat exchange systems, the delay of repair action level is exceeded if a measurement value of the sample taken from a location specified in either paragraphs (c)(1)(i), (c)(1)(ii), or (c)(2)(i) of this section equals or exceeds the delay of repair action level.
- (g) To delay the repair under paragraph (f) of this section, the owner or operator must record the information in paragraphs (g)(1) through (4) of this section.
- (1) The reason(s) for delaying repair.
- (2) A schedule for completing the repair as soon as practical.
- (3) The date and concentration of the leak as first identified and the results of all subsequent monthly monitoring events during the delay of repair.
- (4) An estimate of the potential strippable hydrocarbon emissions from the leaking heat exchange system or heat exchanger for each required delay of repair monitoring interval following the procedures in paragraphs (g)(4)(i) through (iv) of this section.
- (i) Determine the leak concentration as specified in paragraph (c) of this section and convert the stripping gas leak concentration (in ppmv as methane) to an equivalent liquid concentration, in parts per million by weight (ppmw), using equation 7-1 from "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound

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Emissions from Water Sources" Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003 (incorporated by reference—see §63.14) and the molecular weight of 16 grams per mole (g/mol) for methane.

(ii) Determine the mass flow rate of the cooling water at the monitoring location where the leak was detected. If the monitoring location is an individual cooling tower riser, determine the total cooling water mass flow rate to the cooling tower. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. Volumetric flow measurements may be used and converted to mass flow rates using the density of water at the specific monitoring location temperature or using the default density of water at 25 degrees Celsius, which is 997 kilograms per cubic meter or 8.32 pounds per gallon.

(iii) For delay of repair monitoring intervals prior to repair of the leak, calculate the potential strippable hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the monitoring interval by multiplying the leak concentration in the cooling water, ppmw, determined in (g)(4)(i) of this section, by the mass flow rate of the cooling water determined in (g)(4)(ii) of this section and by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have had to be completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.

(iv) For delay of repair monitoring intervals ending with a repaired leak, calculate the potential strippable hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the final delay of repair monitoring interval by multiplying the duration of the final delay of repair monitoring interval by the leak concentration and cooling water flow rates determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to re-monitoring to verify the leak was repaired and ending at the time of the re-monitoring event that verified that the leak was repaired.

[74 FR 55686, Oct. 28, 2009, as amended at 75 FR 37731, June 30, 2010; 78 FR 37146, June 20, 2013]

**# 077 [25 Pa. Code §121.7]****Prohibition of air pollution.**

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

**# 078 [25 Pa. Code §129.100]****Compliance demonstration and recordkeeping requirements.**

(a) Not applicable.

(b) Except as provided in § 129.97(k) and § 129.99(i) (relating to alternative RACT proposal and petition for alternative compliance schedule), the owner and operator of an air contamination source subject to subsection (a) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation in accordance with the procedures in subsection (a) not later than:

(1) January 1, 2017, for a source subject to § 129.96(a) (relating to applicability).

(2) January 1, 2017, or 1 year after the date that 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).

(c) Not applicable.

(d) The owner and operator of an air contamination source subject to this section and §§ 129.96—129.99 shall keep records to demonstrate compliance 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.

**SECTION C. Site Level Requirements**

(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.

(e) 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 NOx emission rate threshold specified in § 129.99(b) 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.

(f) 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.

(g) - (h) Not applicable.

(i) 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.

**# 079 [25 Pa. Code §129.96]****Applicability**

[Sources 1001, 150, 202A, 206, 212, 212A, 213B, 216, 302, 303, 306, 307, 310-312, 400, 402, crude unit cooling tower, MEK cooling tower, and the platformer cooling tower have no NOx emissions]

[Source 202A, 206, 212, 212A, 213B, 216, 302, 303, 311, 312, and 400 are not subject to RACT 2 because they are subject to requirements in 129.55, 129.56, 129.57, 129.58, 129.59, 129.61, 129.62 and/or 129.63 as identified in the Site Level of the Permit]

(a) The NOx requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major NOx emitting facility and the VOC requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major VOC emitting facility that were in existence on or before July 20, 2012, for which a requirement or emission limitation, or both, has not been established in §§ 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

[Source 035 and Source 314 were installed after July 20, 2012 and are not subject to RACT 2]

(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—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

[Sources 041, 043, 044, 045, 046, 047, 049, 050, 051, 150, 306, 307, 402, crude unit cooling tower, MEK cooling tower, and the platformer cooling tower for VOCs are subject to paragraph (c)]

(c) This section and §§ 129.97—129.100 do not apply to the owner and operator of a NOx air contamination source located at a major NOx emitting facility that has the potential to emit less than 1 TPY of NOx 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.

(d) This section and §§ 129.97—129.100 do not apply to the owner and operator of a facility which is not a major NOx emitting facility or a major VOC emitting facility on or before January 1, 2017.

**# 080 [25 Pa. Code §129.97]****Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

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(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) January 1, 2017, for a source subject to § 129.96(a).

(2) Not applicable

(b) Not applicable

(c) The owner and operator of a source specified in this subsection, which is located at a major NO<sub>x</sub> emitting facility or major VOC emitting facility subject to § 129.96 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices:

(1) A NO<sub>x</sub> air contamination source that has the potential to emit less than 5 TPY of NO<sub>x</sub>.

(2) A VOC air contamination source that has the potential to emit less than 2.7 TPY of VOC.

[Paragraph (3) pertains to Sources 044, 045, 046, 047, 049, 050, 051 for NO<sub>x</sub> RACT]

(3) A boiler or other combustion source with an individual rated gross heat input less than 20 million Btu/hour.

(4) Not applicable

[Paragraph (5) pertains to Sources 300A and 401 for NO<sub>x</sub> and VOC RACT]

(5) A stationary internal combustion engine rated at less than 500 bhp (gross).

[Paragraph (6) pertains to Sources FL01 and FL301 for NO<sub>x</sub> and VOC RACT]

(6) An incinerator, thermal oxidizer or catalytic oxidizer used primarily for air pollution control.

(7) Not applicable.

(8) An emergency standby engine operating less than 500 hours in a 12-month rolling period.

[Paragraph (d) pertains to Source 033 and Source 034 for VOC RACT]

(d) Except as specified under subsection (c), the owner and operator of a combustion unit or other combustion source located at a major VOC emitting facility subject to § 129.96 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices for the control of the VOC emissions from the combustion unit or other combustion source.

(e) - (h) Not applicable.

(i) The requirements and emission limitations of this section supersede the requirements and emission limitations of a RACT permit issued to the owner or operator of an air contamination source subject to one or more of subsections (b)—(h) prior to April 23, 2016, under § § 129.91—129.95 (relating to stationary sources of NO<sub>x</sub> and VOCs) to control, reduce or minimize NO<sub>x</sub> emissions or VOC emissions, or both, from the air contamination source unless the permit contains more stringent requirements or emission limitations, or both.

(j) Not applicable.

(k) The owner or operator of a major NO<sub>x</sub> emitting facility or a major VOC emitting facility subject to § 129.96 that includes an air contamination source subject to one or more of subsections (b)—(h) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation without installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:

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(1) The written petition shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:

- (i) October 24, 2016, for a source subject to § 129.96(a).
- (ii) Not applicable

(2) The written petition must include:

(i) A description, including make, model and location, of each affected source subject to a RACT requirement or a RACT emission limitation in one or more of subsections (b)—(h).

(ii) A description of the proposed air cleaning device to be installed.

(iii) A schedule containing proposed interim dates for completing each phase of the required work to install the air cleaning device described in subparagraph (ii).

(iv) A proposed interim emission limitation that will be imposed on the affected source until compliance is achieved with the applicable RACT requirement or RACT emission limitation.

(v) A proposed final compliance date that is as soon as possible but not later than 3 years after the written approval of the petition by the Department or the appropriate approved local air pollution control agency. The approved petition shall be incorporated in an applicable operating permit or plan approval.

(l) The Department or appropriate approved local air pollution control agency will review the timely and complete written petition requesting an alternative compliance schedule submitted in accordance with subsection (k) and approve or deny the petition in writing.

(m) Approval or denial under subsection (l) of the timely and complete petition for an alternative compliance schedule submitted under subsection (k) will be effective on the date the letter of approval or denial of the petition is signed by the authorized representative of the Department or appropriate approved local air pollution control agency.

**# 081 [25 Pa. Code §129.99]**

**Alternative RACT proposal and petition for alternative compliance schedule.**

[ARG submitted an Alternative RACT Proposal for Sources 033, 034, 041, and 043 for NOx RACT Compliance]

[ARG submitted an Alternative RACT Proposal for Source 1001 for VOC RACT Compliance]

[ARG submitted a Plan Approval Application for a portion of Source 206 as an Alternative Compliance Schedule to install a control device for the inert gas process vent associated with the solvent dewaxing unit]

(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 NOx 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) The owner or operator of a NOx air contamination source with a potential emission rate equal to or greater than 5.0 tons of NOx per year that is not subject to § 129.97 or § § 129.201—129.205 (relating to additional NOx requirements) located at a major NOx emitting facility subject to § 129.96 shall propose a NOx RACT requirement or RACT emission limitation in accordance with subsection (d).

(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).

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(d) The owner or operator proposing an alternative RACT requirement or RACT emission limitation under subsection (a), (b) or (c) shall:

(1) Submit a written RACT proposal in accordance with the procedures in § 129.92(a)(1)—(5), (7)—(10) and (b) (relating to RACT proposal requirements) to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:

(i) October 24, 2016, for a source subject to § 129.96(a).

(ii) October 24, 2016, or 6 months after the date that 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).

(2) Be in receipt of an approval issued by the Department or appropriate approved local air pollution control agency in writing through a plan approval or operating permit modification for a RACT proposal submitted under paragraph (1)(ii) prior to the installation, modification or change in the operation of the existing air contamination source that will result in the source or facility meeting the definition of a major NO<sub>x</sub> emitting facility or major VOC emitting facility.

(3) Include in the RACT proposal the proposed alternative NO<sub>x</sub> RACT requirement or RACT emission limitation or VOC RACT requirement or RACT emission limitation developed in accordance with the procedures in § 129.92(a)(1)—(5) and (b).

(4) Include in the RACT proposal a schedule for completing implementation of the RACT requirement or RACT emission limitation as soon as possible but not later than:

(i) January 1, 2017, for a source subject to § 129.96(a).

(ii) January 1, 2017, or 1 year after the date that 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).

(5) Include interim dates in the schedule required under paragraph (4) for the:

(i) Issuance of purchase orders.

(ii) Start and completion of process, technology and control technology changes.

(iii) Completion of compliance testing.

(6) Include in the RACT proposal methods for demonstrating compliance and recordkeeping and reporting requirements in accordance with § 129.100 (relating to compliance demonstration and recordkeeping requirements) for each air contamination source included in the RACT proposal.

(7) Demonstrate to the satisfaction of the Department or the appropriate approved local air pollution control agency that the proposed requirement or RACT emission limitation is RACT for the air contamination source.

(e) The Department or appropriate approved local air pollution control agency will:

(1) Review the timely and complete alternative RACT proposal submitted in accordance with subsection (d).

(2) Approve the alternative RACT proposal submitted under subsection (d), in writing, if the Department or appropriate approved local air pollution control agency is satisfied that the alternative RACT proposal complies with the requirements of subsection (d) and that the proposed alternative requirement or RACT emission limitation is RACT for the air contamination source.

(3) Deny or modify the alternative RACT proposal submitted under subsection (d), in writing, if the proposal does not comply with the requirements of subsection (d).

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(f) The proposed alternative RACT requirement or RACT emission limitation and the implementation schedule submitted under subsection (d) will be approved, denied or modified by the Department or appropriate approved local air pollution control agency in accordance with subsection (e) in writing through the issuance of a plan approval or operating permit modification prior to the owner or operator implementing the alternative RACT requirement or RACT emission limitation.

(g) 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.

(h) The Department will submit each alternative RACT requirement or RACT emission limitation approved under subsection (f) to the Administrator of the EPA for approval as a revision to the SIP. The owner and operator of the facility shall bear the costs of public hearings and notifications, including newspaper notices, required for the SIP submittal.

(i) The owner and operator of a facility proposing to comply with the applicable RACT requirement or RACT emission limitation under subsection (a), (b) or (c) through the installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:

(1) The written petition requesting an alternative compliance schedule shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:

(i) October 24, 2016, for a source subject to § 129.96(a).

(ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NO<sub>x</sub> emitting facility, whichever is later, for a source subject to § 129.96(b).

(2) The written petition must include:

(i) A description, including make, model and location, of each air contamination source subject to a RACT requirement or RACT emission limitation in one or more of subsections (a)—(c).

(ii) A description of the proposed air cleaning device to be installed.

(iii) A schedule containing proposed interim dates for completing each phase of the required work to install the air cleaning device described in subparagraph (ii).

(iv) A proposed interim emission limitation that will be imposed on the affected air contamination source until compliance is achieved with the applicable RACT requirement or RACT emission limitation.

(v) A proposed final compliance date that is as soon as possible but not later than 3 years after the approval of the petition by the Department or the appropriate approved local air pollution control agency. If the petition is for the replacement of an existing source, the final compliance date will be determined on a case-by-case basis. The approved petition shall be incorporated in an applicable operating permit or plan approval.

(j) The Department or appropriate approved local air pollution control agency will review the timely and complete written petition requesting an alternative compliance schedule submitted in accordance with subsection (i) and approve or deny the petition in writing.

(k) 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 (j) 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 (j), except to the extent the existing plan approval or operating permit contains more stringent requirements.

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(l) Approval or denial under subsection (j) of the timely and complete petition for an alternative compliance schedule submitted under subsection (i) will be effective on the date the letter of approval or denial of the petition is signed by the authorized representative of the Department or appropriate approved local air pollution control agency.

**# 082 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.107]  
Subpart J - Standards of Performance for Petroleum Refineries  
Reporting and recordkeeping requirements.**

(e) For each fuel gas stream combusted in a fuel gas combustion device subject to §60.104(a)(1), if an owner or operator determines that one of the exemptions listed in §60.105(a)(4)(iv) applies to that fuel gas stream, the owner or operator shall maintain records of the specific exemption chosen for each fuel gas stream. If the owner or operator applies for the exemption described in §60.105(a)(4)(iv)(D), the owner or operator must keep a copy of the application as well as the letter from the Administrator granting approval of the application.

**# 083 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1063]  
Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
Floating roof requirements.**

The owner or operator who elects to use a floating roof to comply with the requirements of §63.1062 shall comply with the requirements in paragraphs (a) through (e) of this section.

(a) Design requirements—(1) Rim seals. (i) Internal floating roof. An IFR shall be equipped with one of the seal configurations listed in paragraphs (a)(1)(i)(A) through (a)(1)(i)(C) of this section.

(A) A liquid-mounted seal.

(B) A mechanical shoe seal.

(C) Two seals mounted one above the other. The lower seal may be vapor-mounted.

(D) If the IFR is equipped with a vapor-mounted seal as of the proposal date for a referencing subpart, paragraphs (a)(1)(i)(A) through (a)(1)(i)(C) of this section do not apply until the next time the storage vessel is completely emptied and degassed, or 10 years after promulgation of the referencing subpart, whichever occurs first.

(ii) External floating roof. An EFR shall be equipped with one of the seal configurations listed in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section.

(A) A liquid-mounted seal and a secondary seal.

(B) A mechanical shoe seal and a secondary seal. The upper end of the shoe(s) shall extend a minimum of 61 centimeters (24 inches) above the stored liquid surface.

(C) If the EFR is equipped with a liquid-mounted seal or mechanical shoe seal, or a vapor-mounted seal and secondary seal, as of the proposal date for a referencing subpart, the seal options specified in paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this section do not apply until the next time the storage vessel is completely emptied and degassed, or 10 years after the promulgation date of the referencing subpart, whichever occurs first.

(2) Deck fittings. Openings through the deck of the floating roof shall be equipped as described in paragraphs (a)(2)(i) through (a)(2)(viii) of this section.

(i) Each opening except those for automatic bleeder vents (vacuum breaker vents) and rim space vents shall have its lower edge below the surface of the stored liquid.

(ii) Each opening except those for automatic bleeder vents (vacuum breaker vents), rim space vents, leg sleeves, and deck drains shall be equipped with a deck cover. The deck cover shall be equipped with a gasket between the cover and the deck.

(iii) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be equipped with a gasketed lid, pallet,



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flapper, or other closure device.

- (iv) Each opening for a fixed roof support column may be equipped with a flexible fabric sleeve seal instead of a deck cover.
- (v) Each opening for a sample well or deck drain (that empties into the stored liquid) may be equipped with a slit fabric seal or similar device that covers at least 90 percent of the opening, instead of a deck cover.
- (vi) Each cover on access hatches and gauge float wells shall be designed to be bolted or fastened when closed.
- (vii) Each opening for an unslotted guidepole shall be equipped with a pole wiper, and each unslotted guidepole shall be equipped with a gasketed cap on the top of the guidepole.
- (viii) Each opening for a slotted guidepole shall be equipped with one of the control device configurations specified in paragraphs (a)(2)(viii)(A) and (a)(2)(viii)(B) of this section.
  - (A) A pole wiper and a pole float. The wiper or seal of the pole float shall be at or above the height of the pole wiper.
  - (B) A pole wiper and a pole sleeve.
- (ix) If the floating roof does not meet the requirements listed in paragraphs (a)(2)(i) through (a)(2)(viii) of this section as of the proposal date of the referencing subpart, these requirements do not apply until the next time the vessel is completely emptied and degassed, or 10 years after the promulgation date of the referencing subpart, whichever occurs first.
  - (b) Operational requirements. (1) The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg supports or other support devices (e.g., hangers from the fixed roof).
  - (2) When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof, the process of filling to the point of refloating the floating roof shall be continuous and shall be performed as soon as practical.
  - (3) Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access.
  - (4) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design.
  - (5) Each unslotted guidepole cap shall be closed at all times except when gauging the liquid level or taking liquid samples.
- (c) Inspection frequency requirements—(1) Internal floating roofs. Internal floating roofs shall be inspected as specified in paragraph (d)(1) of this section before the initial filling of the storage vessel. Subsequent inspections shall be performed as specified in paragraph (c)(1)(i) or (c)(1)(ii) of this section.
  - (i) Internal floating roofs shall be inspected as specified in paragraphs (c)(1)(i)(A) and (c)(1)(i)(B) of this section.
    - (A) At least once per year the IFR shall be inspected as specified in paragraph (d)(2) of this section.
    - (B) Each time the storage vessel is completely emptied and degassed, or every 10 years, whichever occurs first, the IFR shall be inspected as specified in paragraph (d)(1) of this section.
  - (ii) Instead of the inspection frequency specified in paragraph (c)(1)(i) of this section, internal floating roofs with two rim seals may be inspected as specified in paragraph (d)(1) of this section each time the storage vessel is completely emptied and degassed, or every 5 years, whichever occurs first.
- (2) External floating roofs. External floating roofs shall be inspected as specified in paragraphs (c)(2)(i) through (c)(2)(iv) of this section.
  - (i) Within 90 days after the initial filling of the storage vessel, the primary and secondary rim seals shall be inspected as

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specified in paragraph (d)(3) of this section.

(ii) The secondary seal shall be inspected at least once every year, and the primary seal shall be inspected at least every 5 years, as specified in paragraph (d)(3) of this section.

(iii) Each time the storage vessel is completely emptied and degassed, or every 10 years, whichever occurs first, the EFR shall be inspected as specified in paragraph (d)(1) of this section.

(iv) If the owner or operator determines that it is unsafe to perform the floating roof inspections specified in paragraphs (c)(2)(i) and (c)(2)(ii) of this section, the owner or operator shall comply with the requirements of paragraph (c)(2)(iv)(A) or (c)(2)(iv)(B) of this section.

(A) The inspections shall be performed no later than 30 days after the determination that the floating roof is unsafe.

(B) The storage vessel shall be removed from liquid service no later than 45 days after determining the floating roof is unsafe. If the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional days each. If the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include an explanation of why it was unsafe to perform the inspection, documentation that alternative storage capacity is unavailable, and a schedule of actions that will ensure that the vessel will be emptied as soon as practical.

(d) Inspection procedure requirements. Floating roof inspections shall be conducted as specified in paragraphs (d)(1) through (d)(3) of this section, as applicable. If a floating roof fails an inspection, the owner or operator shall comply with the repair requirements of paragraph (e) of this section.

(1) Floating roof (IFR and EFR) inspections shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seals from within the storage vessel. The inspection may be performed entirely from the top side of the floating roof, as long as there is visual access to all deck components specified in paragraph (a) of this section. Any of the conditions described in paragraphs (d)(1)(i) through (d)(1)(v) of this section constitutes inspection failure.

(i) Stored liquid on the floating roof.

(ii) Holes or tears in the primary or secondary seal (if one is present).

(iii) Floating roof deck, deck fittings, or rim seals that are not functioning as designed (as specified in paragraph (a) of this section).

(iv) Failure to comply with the operational requirements of paragraph (b) of this section.

(v) Gaps of more than 0.32 centimeters ( 1/8 inch) between any deck fitting gasket, seal, or wiper (required by paragraph (a) of this section) and any surface that it is intended to seal.

(2) Tank-top inspections of IFR's shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seal through openings in the fixed roof. Any of the conditions described in paragraphs (d)(1)(i) through (d)(1)(iv) of this section constitutes inspection failure. Identification of holes or tears in the rim seal is required only for the seal that is visible from the top of the storage vessel.

(3) Seal gap inspections for EFR's shall determine the presence and size of gaps between the rim seals and the wall of the storage vessel by the procedures specified in paragraph (d)(3)(i) of this section. Any exceedance of the gap requirements specified in paragraphs (d)(3)(ii) and (d)(3)(iii) of this section constitutes inspection failure.

(i) Rim seals shall be measured for gaps at one or more levels while the EFR is floating, as specified in paragraphs (d)(3)(i)(A) through (d)(3)(i)(F) of this section.

(A) The inspector shall hold a 0.32 centimeter ( 1/8 inch) diameter probe vertically against the inside of the storage vessel wall, just above the rim seal, and attempt to slide the probe down between the seal and the vessel wall. Each location

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where the probe passes freely (without forcing or binding against the seal) between the seal and the vessel wall constitutes a gap.

(B) The length of each gap shall be determined by inserting the probe into the gap (vertically) and sliding the probe along the vessel wall in each direction as far as it will travel freely without binding between the seal and the vessel wall. The circumferential length along which the probe can move freely is the gap length.

(C) The maximum width of each gap shall be determined by inserting probes of various diameters between the seal and the vessel wall. The smallest probe diameter should be 0.32 centimeter, and larger probes should have diameters in increments of 0.32 centimeter. The diameter of the largest probe that can be inserted freely anywhere along the length of the gap is the maximum gap width.

(D) The average width of each gap shall be determined by averaging the minimum gap width (0.32 centimeter) and the maximum gap width.

(E) The area of a gap is the product of the gap length and average gap width.

(F) The ratio of accumulated area of rim seal gaps to storage vessel diameter shall be determined by adding the area of each gap, and dividing the sum by the nominal diameter of the storage vessel. This ratio shall be determined separately for primary and secondary rim seals.

(ii) The ratio of seal gap area to vessel diameter for the primary seal shall not exceed 212 square centimeters per meter of vessel diameter (10 square inches per foot of vessel diameter), and the maximum gap width shall not exceed 3.81 centimeters (1.5 inches).

(iii) The ratio of seal gap area to vessel diameter for the secondary seal shall not exceed 21.2 square centimeters per meter (1 square inch per foot), and the maximum gap width shall not exceed 1.27 centimeters (0.5 inches), except when the secondary seal must be pulled back or removed to inspect the primary seal.

(e) Repair requirements. Conditions causing inspection failures under paragraph (d) of this section shall be repaired as specified in paragraph (e)(1) or (e)(2) of this section.

(1) If the inspection is performed while the storage vessel is not storing liquid, repairs shall be completed before the refilling of the storage vessel with liquid.

(2) If the inspection is performed while the storage vessel is storing liquid, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the owner or operator may use up to 2 extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be completely emptied as soon as practical.

**# 084 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1065]  
Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
Recordkeeping requirements.**

The owner or operator shall keep the records required in paragraph (a) of this section for as long as liquid is stored. Records required in paragraphs (b), (c) and (d) of this section shall be kept for at least 5 years. Records shall be kept in such a manner that they can be readily accessed within 24 hours. Records may be kept in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(a) Vessel dimensions and capacity. A record shall be kept of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.

(b) Inspection results. Records of floating roof inspection results shall be kept as specified in paragraphs (b)(1) and (b)(2) of this section.

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(1) If the floating roof passes inspection, a record shall be kept that includes the information specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section. If the floating roof fails inspection, a record shall be kept that includes the information specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section.

(i) Identification of the storage vessel that was inspected.

(ii) The date of the inspection.

(iii) A description of all inspection failures.

(iv) A description of all repairs and the dates they were made.

(v) The date the storage vessel was removed from service, if applicable.

(2) A record shall be kept of EFR seal gap measurements, including the raw data obtained and any calculations performed.

(c) Floating roof landings. The owner or operator shall keep a record of the date when a floating roof is set on its legs or other support devices. The owner or operator shall also keep a record of the date when the roof was refloated, and the record shall indicate whether the process of refloating was continuous.

(d) An owner or operator who elects to use an extension in accordance with §63.1063(e)(2) or §63.1063(c)(2)(iv)(B) shall keep the documentation required by those paragraphs.

**# 085 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1066]****Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2****Reporting requirements.**

(a) Notification of initial startup. If the referencing subpart requires that a notification of initial startup be filed, then the content of the notification of initial startup shall include (at a minimum) the information specified in the referencing subpart and the information specified in paragraphs (a)(1) and (a)(2) of this section.

(1) The identification of each storage vessel, its capacity and the liquid stored in the storage vessel.

(2) A statement of whether the owner or operator of the source can achieve compliance by the compliance date specified in referencing subpart.

(b) Periodic reports. Report the information specified in paragraphs (b)(1) through (b)(4) of this section, as applicable, in the periodic report specified in the referencing subpart.

(1) Notification of inspection. To provide the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator at least 30 days before an inspection required by §§63.1063(d)(1) or (d)(3). If an inspection is unplanned and the owner or operator could not have known about the inspection 30 days in advance, then the owner or operator shall notify the Administrator at least 7 days before the inspection. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 days before the inspection. If a delegated State or local agency is notified, the owner or operator is not required to notify the Administrator. A delegated State or local agency may waive the requirement for notification of inspections.

(2) Inspection results. The owner or operator shall submit a copy of the inspection record (required in §63.1065) when inspection failures occur.

(3) Requests for alternate devices. The owner or operator requesting the use of an alternate control device shall submit a written application including emissions test results and an analysis demonstrating that the alternate device has an emission factor that is less than or equal to the device specified in §63.1063.

(4) Requests for extensions. An owner or operator who elects to use an extension in accordance with §63.1063(e)(2) or

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§63.1063(c)(2)(iv)(B) shall submit the documentation required by those paragraphs.

**# 086 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.643]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Miscellaneous process vent provisions.**

(a) The owner or operator of a Group 1 miscellaneous process vent as defined in §63.641 shall comply with the requirements of either paragraph (a)(1) or (2) of this section or, if applicable, paragraph (c) of this section. The owner or operator of a miscellaneous process vent that meets the conditions in paragraph (c) of this section is only required to comply with the requirements of paragraph (c) of this section and §63.655(g)(13) and (i)(12) for that vent.

(1) Reduce emissions of organic HAP's using a flare. On and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the requirements of §63.11(b) of subpart A or the requirements of §63.670.

(2) Reduce emissions of organic HAP's, using a control device, by 98 weight-percent or to a concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent. Compliance can be determined by measuring either organic HAP's or TOC's using the procedures in §63.645.

(b) If a boiler or process heater is used to comply with the percentage of reduction requirement or concentration limit specified in paragraph (a)(2) of this section, then the vent stream shall be introduced into the flame zone of such a device, or in a location such that the required percent reduction or concentration is achieved. Testing and monitoring is required only as specified in §§63.644(a) and 63.645 of this subpart.

(c) An owner or operator may designate a process vent as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed or placed into service. The owner or operator does not need to designate a maintenance vent as a Group 1 or Group 2 miscellaneous process vent. The owner or operator must comply with the applicable requirements in paragraphs (c)(1) through (3) of this section for each maintenance vent according to the compliance dates specified in table 11 of this subpart, unless an extension is requested in accordance with the provisions in §63.6(i).

(1) Prior to venting to the atmosphere, process liquids are removed from the equipment as much as practical and the equipment is depressured to a control device, fuel gas system, or back to the process until one of the following conditions, as applicable, is met.

(i) The vapor in the equipment served by the maintenance vent has a lower explosive limit (LEL) of less than 10 percent.

(ii) If there is no ability to measure the LEL of the vapor in the equipment based on the design of the equipment, the pressure in the equipment served by the maintenance vent is reduced to 5 psig or less. Upon opening the maintenance vent, active purging of the equipment cannot be used until the LEL of the vapors in the maintenance vent (or inside the equipment if the maintenance is a hatch or similar type of opening) equipment is less than 10 percent. [Compliance with this requirement assures compliance with 25 Pa. Code Section 129.55(d).]

(iii) The equipment served by the maintenance vent contains less than 72 pounds of VOC.

(iv) If the maintenance vent is associated with equipment containing pyrophoric catalyst (e.g., hydrotreaters and hydrocrackers) at refineries that do not have a pure hydrogen supply, the LEL of the vapor in the equipment must be less than 20 percent, except for one event per year not to exceed 35 percent.

(2) Except for maintenance vents complying with the alternative in paragraph (c)(1)(iii) of this section, the owner or operator must determine the LEL or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications.

(3) For maintenance vents complying with the alternative in paragraph (c)(1)(iii) of this section, the owner or operator

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shall determine mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

(d) After February 1, 2016 and prior to the date of compliance with the maintenance vent provisions in paragraph (c) of this section, the owner or operator must comply with the requirements in §63.642(n) for each maintenance venting event and maintain records necessary to demonstrate compliance with the requirements in §63.642(n) including, if appropriate, records of existing standard site procedures used to deinventory equipment for safety purposes.

[60 FR 43260, Aug. 18, 1995, as amended at 80 FR 75242, Dec. 1, 2015; 81 FR 45241, July 13, 2016]

**# 087 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.644]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Monitoring provisions for miscellaneous process vents.**

(a) Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 miscellaneous process vent that uses a combustion device to comply with the requirements in §63.643(a) shall install the monitoring equipment specified in paragraph (a)(1), (2), (3), or (4) of this section, depending on the type of combustion device used. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately and, except for CPMS installed for pilot flame monitoring, must meet the applicable minimum accuracy, calibration and quality control requirements specified in table 13 of this subpart.

(1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Where a flare is used prior to January 30, 2019, a device (including but not limited to a thermocouple, an ultraviolet beam sensor, or an infrared sensor) capable of continuously detecting the presence of a pilot flame is required, or the requirements of §63.670 shall be met. Where a flare is used on and after January 30, 2019, the requirements of §63.670 shall be met.

(3) Any boiler or process heater with a design heat input capacity greater than or equal to 44 megawatt or any boiler or process heater in which all vent streams are introduced into the flame zone is exempt from monitoring.

(4) Any boiler or process heater less than 44 megawatts design heat capacity where the vent stream is not introduced into the flame zone is required to use a temperature monitoring device in the firebox equipped with a continuous recorder.

(b) An owner or operator of a Group 1 miscellaneous process vent may request approval to monitor parameters other than those listed in paragraph (a) of this section. The request shall be submitted according to the procedures specified in §63.655(h). Approval shall be requested if the owner or operator:

(1) Uses a control device other than an incinerator, boiler, process heater, or flare; or

(2) Uses one of the control devices listed in paragraph (a) of this section, but seeks to monitor a parameter other than those specified in paragraph (a) of this section.

(c) The owner or operator of a Group 1 miscellaneous process vent using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with paragraph (a) of this section either directly to the atmosphere or to a control device that does not comply with the requirements in §63.643(a) shall comply with either paragraph (c)(1) or (2) of this section. Use of the bypass at any time to divert a Group 1 miscellaneous process vent stream to the atmosphere or to a control device that does not comply with the requirements in §63.643(a) is an emissions

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standards violation. Equipment such as low leg drains and equipment subject to §63.648 are not subject to this paragraph (c).

(1) Install, calibrate and maintain a flow indicator that determines whether a vent stream flow is present at least once every hour. A manual block valve equipped with a valve position indicator may be used in lieu of a flow indicator, as long as the valve position indicator is monitored continuously. Records shall be generated as specified in §63.655(h) and (i). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and that the vent stream is not diverted through the bypass line.

(d) The owner or operator shall establish a range that ensures compliance with the emissions standard for each parameter monitored under paragraphs (a) and (b) of this section. In order to establish the range, the information required in §63.655(f)(3) shall be submitted in the Notification of Compliance Status report.

(e) Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum and/or maximum operating parameter value or procedure required to be monitored under paragraphs (a) and (b) of this section. Operation of the control device in a manner that constitutes a period of excess emissions, as defined in §63.655(g)(6), or failure to perform procedures required by this section shall constitute a violation of the applicable emission standard of this subpart.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 63 FR 44141, Aug. 18, 1998; 74 FR 55685, Oct. 28, 2009; 80 FR 75243, Dec. 1, 2015]

**# 088 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.645]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Test methods and procedures for miscellaneous process vents.**

(a) To demonstrate compliance with §63.643, an owner or operator shall follow §63.116 except for §63.116 (a)(1), (d) and (e) of subpart G of this part except as provided in paragraphs (b) through (d) and paragraph (i) of this section.

(b) All references to §63.113(a)(1) or (a)(2) in §63.116 of subpart G of this part shall be replaced with §63.643(a)(1) or (a)(2), respectively.

(c) In §63.116(c)(4)(ii)(C) of subpart G of this part, organic HAP's in the list of HAP's in table 1 of this subpart shall be considered instead of the organic HAP's in table 2 of subpart F of this part.

(d) All references to §63.116(b)(1) or (b)(2) shall be replaced with paragraphs (d)(1) and (d)(2) of this section, respectively.

(1) Any boiler or process heater with a design heat input capacity of 44 megawatts or greater.

(2) Any boiler or process heater in which all vent streams are introduced into the flame zone.

(e) For purposes of determining the TOC emission rate, as specified under paragraph (f) of this section, the sampling site shall be after the last product recovery device (as defined in §63.641 of this subpart) (if any recovery devices are present) but prior to the inlet of any control device (as defined in §63.641 of this subpart) that is present, prior to any dilution of the process vent stream, and prior to release to the atmosphere.

(1) Methods 1 or 1A of 40 CFR part 60, appendix A-1, as appropriate, shall be used for selection of the sampling site. For vents smaller than 0.10 meter in diameter, sample at the center of the vent.

(2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.

(f) Except as provided in paragraph (g) of this section, an owner or operator seeking to demonstrate that a process vent TOC mass flow rate is less than 33 kilograms per day for an existing source or less than 6.8 kilograms per day for a new

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source in accordance with the Group 2 process vent definition of this subpart shall determine the TOC mass flow rate by the following procedures:

(1) The sampling site shall be selected as specified in paragraph (e) of this section.

(2) The gas volumetric flow rate shall be determined using Methods 2, 2A, 2C, 2D, or 2F of 40 CFR part 60, appendix A-1 or Method 2G of 40 CFR part 60, appendix A-2, as appropriate.

(3) Method 18 or Method 25A of 40 CFR part 60, appendix A shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used. If Method 25A is used, and the TOC mass flow rate calculated from the Method 25A measurement is greater than or equal to 33 kilograms per day for an existing source or 6.8 kilograms per day for a new source, Method 18 may be used to determine any non-VOC hydrocarbons that may be deducted to calculate the TOC (minus non-VOC hydrocarbons) concentration and mass flow rate. The following procedures shall be used to calculate parts per million by volume concentration:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(ii) The TOC concentration (CTOC) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation if Method 18 is used :

[Refer to the regulation for the equation]

where:

CTOC = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

C<sub>ji</sub> = Concentration of sample component j of the sample i, dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

(4) The emission rate of TOC (minus methane and ethane) (ETOC) shall be calculated using the following equation if Method 18 is used:

[Refer to the regulation for the equation]

where:

E = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.

K<sub>2</sub> = Constant,  $5.986 \times 10^{-5}$  (parts per million)<sup>-1</sup> (gram-mole per standard cubic meter) (kilogram per gram) (minute per day), where the standard temperature (standard cubic meter) is at 20 °C.

C<sub>j</sub> = Concentration on a dry basis of organic compound j in parts per million as measured by Method 18 of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section. C<sub>j</sub> includes all organic compounds measured minus methane and ethane.

M<sub>j</sub> = Molecular weight of organic compound j, gram per gram-mole.

Q<sub>s</sub> = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(5) If Method 25A is used, the emission rate of TOC (ETOC) shall be calculated using the following equation:



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ETOC =  $K_2CTOCM Q_s$

where:

ETOC = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.

$K_2$  = Constant,  $5.986 \times 10^{-5}$  (parts per million)  $^{-1}$  (gram-mole per standard cubic meter) (kilogram per gram)(minute per day), where the standard temperature (standard cubic meter) is at 20 °C.

CTOC = Concentration of TOC on a dry basis in parts per million volume as measured by Method 25A of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section.

M = Molecular weight of organic compound used to express units of CTOC, gram per gram-mole.

$Q_s$  = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(g) Engineering assessment may be used to determine the TOC emission rate for the representative operating condition expected to yield the highest daily emission rate.

(1) Engineering assessment includes, but is not limited to, the following:

(i) Previous test results provided the tests are representative of current operating practices at the process unit.

(ii) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(iii) TOC emission rate specified or implied within a permit limit applicable to the process vent.

(iv) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(A) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(B) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities;

and

(C) Estimation of TOC concentrations based on saturation conditions.

(v) All data, assumptions, and procedures used in the engineering assessment shall be documented.

(h) The owner or operator of a Group 2 process vent shall recalculate the TOC emission rate for each process vent, as necessary, whenever process changes are made to determine whether the vent is in Group 1 or Group 2. Examples of process changes include, but are not limited to, changes in production capacity, production rate, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph, process changes do not include: process upsets; unintentional, temporary process changes; and changes that are within the range on which the original calculation was based.

(1) The TOC emission rate shall be recalculated based on measurements of vent stream flow rate and TOC as specified in paragraphs (e) and (f) of this section, as applicable, or on best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in paragraph (g) of this section.

(2) Where the recalculated TOC emission rate is greater than 33 kilograms per day for an existing source or greater than 6.8 kilograms per day for a new source, the owner or operator shall submit a report as specified in §63.655(f), (g), or (h) and shall comply with the appropriate provisions in §63.643 by the dates specified in §63.640.

(i) A compliance determination for visible emissions shall be conducted within 150 days of the compliance date using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.

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[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 63 FR 44141, Aug. 18, 1998; 74 FR 55685, Oct. 28, 2009; 80 FR 75243, Dec. 1, 2015]

**# 089 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.658]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Fenceline monitoring provisions**

(a) The owner or operator shall conduct sampling along the facility property boundary and analyze the samples in accordance with Methods 325A and 325B of appendix A of this part and paragraphs (b) through (k) of this section.

(b) The target analyte is benzene.

(c) The owner or operator shall determine passive monitor locations in accordance with Section 8.2 of Method 325A of appendix A of this part.

(1) As it pertains to this subpart, known sources of VOCs, as used in Section 8.2.1.3 in Method 325A of appendix A of this part for siting passive monitors, means a wastewater treatment unit, process unit, or any emission source requiring control according to the requirements of this subpart, including marine vessel loading operations. For marine vessel loading operations, one passive monitor should be sited on the shoreline adjacent to the dock.

(2) The owner or operator may collect one or more background samples if the owner or operator believes that an offsite upwind source or an onsite source excluded under §63.640(g) may influence the sampler measurements. If the owner or operator elects to collect one or more background samples, the owner or operator must develop and submit a site-specific monitoring plan for approval according to the requirements in paragraph (i) of this section. Upon approval of the site-specific monitoring plan, the background sampler(s) should be operated co-currently with the routine samplers.

(3) The owner or operator shall collect at least one co-located duplicate sample for every 10 field samples per sampling period and at least two field blanks per sampling period, as described in Section 9.3 in Method 325A of appendix A of this part. The co-located duplicates may be collected at any one of the perimeter sampling locations.

(4) The owner or operator shall follow the procedure in Section 9.6 of Method 325B of appendix A of this part to determine the detection limit of benzene for each sampler used to collect samples, background samples (if the owner or operator elects to do so), co-located samples and blanks.

(d) The owner or operator shall collect and record meteorological data according to the applicable requirements in paragraphs (d)(1) through (3) of this section.

(1) If a near-field source correction is used as provided in paragraph (i)(1) of this section or if an alternative test method is used that provides time-resolved measurements, the owner or operator shall:

(i) Use an on-site meteorological station in accordance with Section 8.3 of Method 325A of appendix A of this part.

(ii) Collect and record hourly average meteorological data, including temperature, barometric pressure, wind speed and wind direction and calculate daily unit vector wind direction and daily sigma theta.

(2) For cases other than those specified in paragraph (d)(1) of this section, the owner or operator shall collect and record sampling period average temperature and barometric pressure using either an on-site meteorological station in accordance with Section 8.3 of Method 325A of appendix A of this part or, alternatively, using data from a United States Weather Service (USWS) meteorological station provided the USWS meteorological station is within 40 kilometers (25 miles) of the refinery.

(3) If an on-site meteorological station is used, the owner or operator shall follow the calibration and standardization procedures for meteorological measurements in EPA-454/B-08-002 (incorporated by reference—see §63.14).

(e) The owner or operator shall use a sampling period and sampling frequency as specified in paragraphs (e)(1) through (3) of this section.

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(1) Sampling period. A 14-day sampling period shall be used, unless a shorter sampling period is determined to be necessary under paragraph (g) or (i) of this section. A sampling period is defined as the period during which sampling tube is deployed at a specific sampling location with the diffusive sampling end cap in-place and does not include the time required to analyze the sample. For the purpose of this subpart, a 14-day sampling period may be no shorter than 13 calendar days and no longer than 15 calendar days, but the routine sampling period shall be 14 calendar days.

(2) Base sampling frequency. Except as provided in paragraph (e)(3) of this section, the frequency of sample collection shall be once each contiguous 14-day sampling period, such that the beginning of the next 14-day sampling period begins immediately upon the completion of the previous 14-day sampling period.

(3) Alternative sampling frequency for burden reduction. When an individual monitor consistently achieves results at or below  $0.9 \mu\text{g}/\text{m}^3$ , the owner or operator may elect to use the applicable minimum sampling frequency specified in paragraphs (e)(3)(i) through (v) of this section for that monitoring site. When calculating delta c for the monitoring period when using this alternative for burden reduction, zero shall be substituted for the sample result for the monitoring site for any period where a sample is not taken.

(i) If every sample at a monitoring site is at or below  $0.9 \mu\text{g}/\text{m}^3$  for 2 years (52 consecutive samples), every other sampling period can be skipped for that monitoring site, i.e., sampling will occur approximately once per month.

(ii) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(i) of this section is at or below  $0.9 \mu\text{g}/\text{m}^3$  for 2 years (i.e., 26 consecutive "monthly" samples), five 14-day sampling periods can be skipped for that monitoring site following each period of sampling, i.e., sampling will occur approximately once per quarter.

(iii) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(ii) of this section is at or below  $0.9 \mu\text{g}/\text{m}^3$  for 2 years (i.e., 8 consecutive quarterly samples), twelve 14-day sampling periods can be skipped for that monitoring site following each period of sampling, i.e., sampling will occur twice a year.

(iv) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(iii) of this section is at or below  $0.9 \mu\text{g}/\text{m}^3$  for an 2 years (i.e., 4 consecutive semi-annual samples), only one sample per year is required for that monitoring site. For yearly sampling, samples shall occur at least 10 months but no more than 14 months apart.

(v) If at any time a sample for a monitoring site that is monitored at the frequency specified in paragraphs (e)(3)(i) through (iv) of this section returns a result that is above  $0.9 \mu\text{g}/\text{m}^3$ , the sampling site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for one quarter (six 14-day sampling periods). If every sample collected during this quarter is at or below  $0.9 \mu\text{g}/\text{m}^3$ , the owner or operator may revert back to the reduced monitoring schedule applicable for that monitoring site prior to the sample reading exceeding  $0.9 \mu\text{g}/\text{m}^3$ . If any sample collected during this quarter is above  $0.9 \mu\text{g}/\text{m}^3$ , that monitoring site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for a minimum of two years. The burden reduction requirements can be used again for that monitoring site once the requirements of paragraph (e)(3)(i) of this section are met again, i.e., after 52 contiguous 14-day samples with no results above  $0.9 \mu\text{g}/\text{m}^3$ .

(f) Within 45 days of completion of each sampling period, the owner or operator shall determine whether the results are above or below the action level as follows:

(1) The owner or operator shall determine the facility impact on the benzene concentration (delta c) for each 14-day sampling period according to either paragraph (f)(1)(i) or (ii) of this section, as applicable.

(i) Except when near-field source correction is used as provided in paragraph (i) of this section, the owner or operator shall determine the highest and lowest sample results for benzene concentrations from the sample pool and calculate delta c as the difference in these concentrations. The owner or operator shall adhere to the following procedures when one or more samples for the sampling period are below the method detection limit for benzene:

(A) If the lowest detected value of benzene is below detection, the owner or operator shall use zero as the lowest sample result when calculating delta c.

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(B) If all sample results are below the method detection limit, the owner or operator shall use the method detection limit as the highest sample result.

(ii) When near-field source correction is used as provided in paragraph (i) of this section, the owner or operator shall determine delta c using the calculation protocols outlined in the approved site-specific monitoring plan and in paragraph (i) of this section.

(2) The owner or operator shall calculate the annual average delta c based on the average of the 26 most recent 14-day sampling periods. The owner or operator shall update this annual average value after receiving the results of each subsequent 14-day sampling period.

(3) The action level for benzene is 9 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) on an annual average basis. If the annual average delta c value for benzene is less than or equal to  $9 \mu\text{g}/\text{m}^3$ , the concentration is below the action level. If the annual average delta c value for benzene is greater than  $9 \mu\text{g}/\text{m}^3$ , the concentration is above the action level, and the owner or operator shall conduct a root cause analysis and corrective action in accordance with paragraph (g) of this section.

(g) Within 5 days of determining that the action level has been exceeded for any annual average delta c and no longer than 50 days after completion of the sampling period, the owner or operator shall initiate a root cause analysis to determine the cause of such exceedance and to determine appropriate corrective action, such as those described in paragraphs (g)(1) through (4) of this section. The root cause analysis and initial corrective action analysis shall be completed and initial corrective actions taken no later than 45 days after determining there is an exceedance. Root cause analysis and corrective action may include, but is not limited to:

(1) Leak inspection using Method 21 of part 60, appendix A-7 of this chapter and repairing any leaks found.

(2) Leak inspection using optical gas imaging and repairing any leaks found.

(3) Visual inspection to determine the cause of the high benzene emissions and implementing repairs to reduce the level of emissions.

(4) Employing progressively more frequent sampling, analysis and meteorology (e.g., using shorter sampling periods for Methods 325A and 325B of appendix A of this part, or using active sampling techniques).

(h) If, upon completion of the corrective action analysis and corrective actions such as those described in paragraph (g) of this section, the delta c value for the next 14-day sampling period for which the sampling start time begins after the completion of the corrective actions is greater than  $9 \mu\text{g}/\text{m}^3$  or if all corrective action measures identified require more than 45 days to implement, the owner or operator shall develop a corrective action plan that describes the corrective action(s) completed to date, additional measures that the owner or operator proposes to employ to reduce fence-line concentrations below the action level, and a schedule for completion of these measures. The owner or operator shall submit the corrective action plan to the Administrator within 60 days after receiving the analytical results indicating that the delta c value for the 14-day sampling period following the completion of the initial corrective action is greater than  $9 \mu\text{g}/\text{m}^3$  or, if no initial corrective actions were identified, no later than 60 days following the completion of the corrective action analysis required in paragraph (g) of this section.

(i) An owner or operator may request approval from the Administrator for a site-specific monitoring plan to account for offsite upwind sources or onsite sources excluded under §63.640(g) according to the requirements in paragraphs (i)(1) through (4) of this section.

(1) The owner or operator shall prepare and submit a site-specific monitoring plan and receive approval of the site-specific monitoring plan prior to using the near-field source alternative calculation for determining delta c provided in paragraph (i)(2) of this section. The site-specific monitoring plan shall include, at a minimum, the elements specified in paragraphs (i)(1)(i) through (v) of this section. The procedures in Section 12 of Method 325A of appendix A of this part are not required, but may be used, if applicable, when determining near-field source contributions.

(i) Identification of the near-field source or sources. For onsite sources, documentation that the onsite source is excluded under §63.640(g) and identification of the specific provision in §63.640(g) that applies to the source.

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(ii) Location of the additional monitoring stations that shall be used to determine the uniform background concentration and the near-field source concentration contribution.

(iii) Identification of the fenceline monitoring locations impacted by the near-field source. If more than one near-field source is present, identify the near-field source or sources that are expected to contribute to the concentration at that monitoring location.

(iv) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location.

(v) If more frequent monitoring or a monitoring station other than a passive diffusive tube monitoring station is proposed, provide a detailed description of the measurement methods, measurement frequency, and recording frequency for determining the uniform background or near-field source concentration contribution.

(2) When an approved site-specific monitoring plan is used, the owner or operator shall determine delta c for comparison with the 9 µg/m<sup>3</sup> action level using the requirements specified in paragraphs (i)(2)(i) through (iii) of this section.

(i) For each monitoring location, calculate delta c<sub>i</sub> using the following equation.

$$\text{delta } c_i = \text{MFC}_i - \text{NFS}_i - \text{UB}$$

Where:

delta c<sub>i</sub> = The fenceline concentration, corrected for background, at measurement location i, micrograms per cubic meter (µg/m<sup>3</sup>).

MFC<sub>i</sub> = The measured fenceline concentration at measurement location i, µg/m<sup>3</sup>.

NFS<sub>i</sub> = The near-field source contributing concentration at measurement location i determined using the additional measurements and calculation procedures included in the site-specific monitoring plan, µg/m<sup>3</sup>. For monitoring locations that are not included in the site-specific monitoring plan as impacted by a near-field source, use NFS<sub>i</sub> = 0 µg/m<sup>3</sup>.

UB = The uniform background concentration determined using the additional measurements included in the site-specific monitoring plan, µg/m<sup>3</sup>. If no additional measurements are specified in the site-specific monitoring plan for determining the uniform background concentration, use UB = 0 µg/m<sup>3</sup>.

(ii) When one or more samples for the sampling period are below the method detection limit for benzene, adhere to the following procedures:

(A) If the benzene concentration at the monitoring location used for the uniform background concentration is below the method detection limit, the owner or operator shall use zero for UB for that monitoring period.

(B) If the benzene concentration at the monitoring location(s) used to determine the near-field source contributing concentration is below the method detection limit, the owner or operator shall use zero for the monitoring location concentration when calculating NFS<sub>i</sub> for that monitoring period.

(C) If a fenceline monitoring location sample result is below the method detection limit, the owner or operator shall use the method detection limit as the sample result.

(iii) Determine delta c for the monitoring period as the maximum value of delta c<sub>i</sub> from all of the fenceline monitoring locations for that monitoring period.

(3) The site-specific monitoring plan shall be submitted and approved as described in paragraphs (i)(3)(i) through (iv) of this section.

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(i) The site-specific monitoring plan must be submitted to the Administrator for approval.

(ii) The site-specific monitoring plan shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143-01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to refineryrtr@epa.gov.

(iii) The Administrator shall approve or disapprove the plan in 90 days. The plan shall be considered approved if the Administrator either approves the plan in writing, or fails to disapprove the plan in writing. The 90-day period shall begin when the Administrator receives the plan.

(iv) If the Administrator finds any deficiencies in the site-specific monitoring plan and disapproves the plan in writing, the owner or operator may revise and resubmit the site-specific monitoring plan following the requirements in paragraphs (i)(3)(i) and (ii) of this section. The 90-day period starts over with the resubmission of the revised monitoring plan.

(4) The approval by the Administrator of a site-specific monitoring plan will be based on the completeness, accuracy and reasonableness of the request for a site-specific monitoring plan. Factors that the Administrator will consider in reviewing the request for a site-specific monitoring plan include, but are not limited to, those described in paragraphs (i)(4)(i) through (v) of this section.

(i) The identification of the near-field source or sources. For onsite sources, the documentation provided that the onsite source is excluded under §63.640(g).

(ii) The monitoring location selected to determine the uniform background concentration or an indication that no uniform background concentration monitor will be used.

(iii) The location(s) selected for additional monitoring to determine the near-field source concentration contribution.

(iv) The identification of the fence line monitoring locations impacted by the near-field source or sources.

(v) The appropriateness of the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location.

(vi) If more frequent monitoring is proposed, the adequacy of the description of the measurement and recording frequency proposed and the adequacy of the rationale for using the alternative monitoring frequency.

(j) The owner or operator shall comply with the applicable recordkeeping and reporting requirements in §63.655(h) and (i).

(k) As outlined in §63.7(f), the owner or operator may submit a request for an alternative test method. At a minimum, the request must follow the requirements outlined in paragraphs (k)(1) through (7) of this section.

(1) The alternative method may be used in lieu of all or a partial number of passive samplers required in Method 325A of appendix A of this part.

(2) The alternative method must be validated according to Method 301 in appendix A of this part or contain performance based procedures and indicators to ensure self-validation.

(3) The method detection limit must nominally be at least an order of magnitude below the action level, i.e., 0.9 µg/m<sup>3</sup> benzene. The alternate test method must describe the procedures used to provide field verification of the detection limit.

(4) The spatial coverage must be equal to or better than the spatial coverage provided in Method 325A of appendix A of this part.

(i) For path average concentration open-path instruments, the physical path length of the measurement shall be no more than a passive sample footprint (the spacing that would be provided by the sorbent traps when following Method 325A). For example, if Method 325A requires spacing monitors A and B 610 meters (2000 feet) apart, then the physical path

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length limit for the measurement at that portion of the fenceline shall be no more than 610 meters (2000 feet).

(ii) For range resolved open-path instrument or approach, the instrument or approach must be able to resolve an average concentration over each passive sampler footprint within the path length of the instrument.

(iii) The extra samplers required in Sections 8.2.1.3 of Method 325A may be omitted when they fall within the path length of an open-path instrument.

(5) At a minimum, non-integrating alternative test methods must provide a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(6) For alternative test methods capable of real time measurements (less than a 5 minute sampling and analysis cycle), the alternative test method may allow for elimination of data points corresponding to outside emission sources for purpose of calculation of the high point for the two week average. The alternative test method approach must have wind speed, direction and stability class of the same time resolution and within the footprint of the instrument.

(7) For purposes of averaging data points to determine the delta c for the 14-day average high sample result, all results measured under the method detection limit must use the method detection limit. For purposes of averaging data points for the 14-day average low sample result, all results measured under the method detection limit must use zero.

[80 FR 75254, Dec. 1, 2015, as amended at 81 FR 45241, July 13, 2016]

**# 090 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.660]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

On and after the applicable compliance date for a Group 1 storage vessel located at a new or existing source as specified in §63.640(h), the owner or operator of a Group 1 storage vessel that is part of a new or existing source shall comply with the requirements in subpart WW or SS of this part according to the requirements in paragraphs (a) through (i) of this section.

(a) As used in this section, all terms not defined in §63.641 shall have the meaning given them in subpart A, WW, or SS of this part. The definitions of "Group 1 storage vessel" (paragraph (2)) and "Storage vessel" in §63.641 shall apply in lieu of the definition of "Storage vessel" in §63.1061.

(1) An owner or operator may use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.

(2) When an owner or operator and the Administrator do not agree on whether the annual average weight percent organic HAP in the stored liquid is above or below 4 percent for a storage vessel at an existing source or above or below 2 percent for a storage vessel at a new source, an appropriate method (based on the type of liquid stored) as published by EPA or a consensus-based standards organization shall be used. Consensus-based standards organizations include, but are not limited to, the following: ASTM International (100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, <http://www.astm.org>), the American National Standards Institute (ANSI, 1819 L Street NW., 6th Floor, Washington, DC 20036, (202) 293-8020, <http://www.ansi.org>), the American Gas Association (AGA, 400 North Capitol Street NW., 4th Floor, Washington, DC 20001, (202) 824-7000, <http://www.aga.org>), the American Society of Mechanical Engineers (ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, <http://www.asme.org>), the American Petroleum Institute (API, 1220 L Street NW., Washington, DC 20005-4070, (202) 682-8000, <http://www.api.org>), and the North American Energy Standards Board (NAESB, 801 Travis Street, Suite 1675, Houston, TX 77002, (713) 356-0060, <http://www.naesb.org>).

(b) A floating roof storage vessel complying with the requirements of subpart WW of this part may comply with the control option specified in paragraph (b)(1) of this section and, if equipped with a ladder having at least one slotted leg, shall comply with one of the control options as described in paragraph (b)(2) of this section.

(1) In addition to the options presented in §§63.1063(a)(2)(viii)(A) and (B) and 63.1064, a floating roof storage vessel

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may comply with §63.1063(a)(2)(vii) using a flexible enclosure device and either a gasketed or welded cap on the top of the guidepole.

(2) Each opening through a floating roof for a ladder having at least one slotted leg shall be equipped with one of the configurations specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) A pole float in the slotted leg and pole wipers for both legs. The wiper or seal of the pole float must be at or above the height of the pole wiper.

(ii) A ladder sleeve and pole wipers for both legs of the ladder.

(iii) A flexible enclosure device and either a gasketed or welded cap on the top of the slotted leg.

(c) For the purposes of this subpart, references shall apply as specified in paragraphs (c)(1) through (6) of this section.

(1) All references to “the proposal date for a referencing subpart” and “the proposal date of the referencing subpart” in subpart WW of this part mean June 30, 2014.

(2) All references to “promulgation of the referencing subpart” and “the promulgation date of the referencing subpart” in subpart WW of this part mean February 1, 2016.

(3) All references to “promulgation date of standards for an affected source or affected facility under a referencing subpart” in subpart SS of this part mean February 1, 2016.

(4) All references to “the proposal date of the relevant standard established pursuant to CAA section 112(f)” in subpart SS of this part mean June 30, 2014.

(5) All references to “the proposal date of a relevant standard established pursuant to CAA section 112(d)” in subpart SS of this part mean July 14, 1994.

(6) All references to the “required control efficiency” in subpart SS of this part mean reduction of organic HAP emissions by 95 percent or to an outlet concentration of 20 ppmv.

(d) For an uncontrolled fixed roof storage vessel that commenced construction on or before June 30, 2014, and that meets the definition of “Group 1 storage vessel”, paragraph (2), in §63.641 but not the definition of “Group 1 storage vessel”, paragraph (1), in §63.641, the requirements of §63.982 and/or §63.1062 do not apply until the next time the storage vessel is completely emptied and degassed, or January 30, 2026, whichever occurs first.

(e) Failure to perform inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

(f) References in §63.1066(a) to initial startup notification requirements do not apply.

(g) References to the Notification of Compliance Status in §63.999(b) mean the Notification of Compliance Status required by §63.655(f).

(h) References to the Periodic Reports in §§63.1066(b) and 63.999(c) mean the Periodic Report required by §63.655(g).

(i) Owners or operators electing to comply with the requirements in subpart SS of this part for a Group 1 storage vessel must comply with the requirements in paragraphs (i)(1) through (3) of this section.

(1) If a flare is used as a control device, the flare shall meet the requirements of §63.670 instead of the flare requirements in §63.987.

(2) If a closed vent system contains a bypass line, the owner or operator shall comply with the provisions of either §63.983(a)(3)(i) or (ii) for each closed vent system that contains bypass lines that could divert a vent stream either directly



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to the atmosphere or to a control device that does not comply with the requirements in subpart SS of this part. Except as provided in paragraphs (i)(2)(i) and (ii) of this section, use of the bypass at any time to divert a Group 1 storage vessel to either directly to the atmosphere or to a control device that does not comply with the requirements in subpart SS of this part is an emissions standards violation. Equipment such as low leg drains and equipment subject to §63.648 are not subject to this paragraph (i)(2).

(i) If planned routine maintenance of the control device cannot be performed during periods that storage vessel emissions are vented to the control device or when the storage vessel is taken out of service for inspections or other planned maintenance reasons, the owner or operator may bypass the control device.

(ii) Periods for which storage vessel control device may be bypassed for planned routine maintenance of the control device shall not exceed 240 hours per calendar year.

(3) If storage vessel emissions are routed to a fuel gas system or process, the fuel gas system or process shall be operating at all times when regulated emissions are routed to it. The exception in §63.984(a)(1) does not apply.

[80 FR 75257, Dec. 1, 2015]

**# 091 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.670]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Requirements for flare control devices.**

On or before January 30, 2019, the owner or operator of a flare used as a control device for an emission point subject to this subpart shall meet the applicable requirements for flares as specified in paragraphs (a) through (q) of this section and the applicable requirements in §63.671. The owner or operator may elect to comply with the requirements of paragraph (r) of this section in lieu of the requirements in paragraphs (d) through (f) of this section, as applicable.

(a) [Reserved]

(b) Pilot flame presence. The owner or operator shall operate each flare with a pilot flame present at all times when regulated material is routed to the flare. Each 15-minute block during which there is at least one minute where no pilot flame is present when regulated material is routed to the flare is a deviation of the standard. Deviations in different 15-minute blocks from the same event are considered separate deviations. The owner or operator shall monitor for the presence of a pilot flame as specified in paragraph (g) of this section.

(c) Visible emissions. The owner or operator shall specify the smokeless design capacity of each flare and operate with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, when regulated material is routed to the flare and the flare vent gas flow rate is less than the smokeless design capacity of the flare. The owner or operator shall monitor for visible emissions from the flare as specified in paragraph (h) of this section.

(d) Flare tip velocity. For each flare, the owner or operator shall comply with either paragraph (d)(1) or (2) of this section, provided the appropriate monitoring systems are in-place, whenever regulated material is routed to the flare for at least 15-minutes and the flare vent gas flow rate is less than the smokeless design capacity of the flare.

(1) Except as provided in paragraph (d)(2) of this section, the actual flare tip velocity ( $V_{tip}$ ) must be less than 60 feet per second. The owner or operator shall monitor  $V_{tip}$  using the procedures specified in paragraphs (i) and (k) of this section.

(2)  $V_{tip}$  must be less than 400 feet per second and also less than the maximum allowed flare tip velocity ( $V_{max}$ ) as calculated according to the following equation. The owner or operator shall monitor  $V_{tip}$  using the procedures specified in paragraphs (i) and (k) of this section and monitor gas composition and determine  $NH_3$  using the procedures specified in paragraphs (j) and (l) of this section.

[Refer to 40 CFR 63.670(d)(2) for the equation]

Where:

$V_{max}$  = Maximum allowed flare tip velocity, ft/sec.

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NHVg = Net heating value of flare vent gas, as determined by paragraph (l)(4) of this section, Btu/scf.

1,212 = Constant.

850 = Constant.

(e) Combustion zone operating limits. For each flare, the owner or operator shall operate the flare to maintain the net heating value of flare combustion zone gas (NHVcz) at or above 270 British thermal units per standard cubic feet (Btu/scf) determined on a 15-minute block period basis when regulated material is routed to the flare for at least 15-minutes. The owner or operator shall monitor and calculate NHVcz as specified in paragraph (m) of this section.

(f) Dilution operating limits for flares with perimeter assist air. For each flare actively receiving perimeter assist air, the owner or operator shall operate the flare to maintain the net heating value dilution parameter (NHVdil) at or above 22 British thermal units per square foot (Btu/ft<sup>2</sup>) determined on a 15-minute block period basis when regulated material is being routed to the flare for at least 15-minutes. The owner or operator shall monitor and calculate NHVdil as specified in paragraph (n) of this section.

(g) Pilot flame monitoring. The owner or operator shall continuously monitor the presence of the pilot flame(s) using a device (including, but not limited to, a thermocouple, ultraviolet beam sensor, or infrared sensor) capable of detecting that the pilot flame(s) is present.

(h) Visible emissions monitoring. The owner or operator shall monitor visible emissions while regulated materials are vented to the flare. An initial visible emissions demonstration must be conducted using an observation period of 2 hours using Method 22 at 40 CFR part 60, appendix A-7. Subsequent visible emissions observations must be conducted using either the methods in paragraph (h)(1) of this section or, alternatively, the methods in paragraph (h)(2) of this section. The owner or operator must record and report any instances where visible emissions are observed for more than 5 minutes during any 2 consecutive hours as specified in §63.655(g)(11)(ii).

(1) At least once per day, conduct visible emissions observations using an observation period of 5 minutes using Method 22 at 40 CFR part 60, appendix A-7. If at any time the owner or operator sees visible emissions, even if the minimum required daily visible emission monitoring has already been performed, the owner or operator shall immediately begin an observation period of 5 minutes using Method 22 at 40 CFR part 60, appendix A-7. If visible emissions are observed for more than one continuous minute during any 5-minute observation period, the observation period using Method 22 at 40 CFR part 60, appendix A-7 must be extended to 2 hours or until 5-minutes of visible emissions are observed.

(2) Use a video surveillance camera to continuously record (at least one frame every 15 seconds with time and date stamps) images of the flare flame and a reasonable distance above the flare flame at an angle suitable for visual emissions observations. The owner or operator must provide real-time video surveillance camera output to the control room or other continuously manned location where the camera images may be viewed at any time.

(i) Flare vent gas, steam assist and air assist flow rate monitoring. The owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate in the flare header or headers that feed the flare as well as any supplemental natural gas used. Different flow monitoring methods may be used to measure different gaseous streams that make up the flare vent gas provided that the flow rates of all gas streams that contribute to the flare vent gas are determined. If assist air or assist steam is used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of assist air and/or assist steam used with the flare. If pre-mix assist air and perimeter assist are both used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of separately measuring, calculating, and recording the volumetric flow rate of premix assist air and perimeter assist air used with the flare. Continuously monitoring fan speed or power and using fan curves is an acceptable method for continuously monitoring assist air flow rates.

(1) The flow rate monitoring systems must be able to correct for the temperature and pressure of the system and output parameters in standard conditions (i.e., a temperature of 20 °C (68 °F) and a pressure of 1 atmosphere).

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(2) Mass flow monitors may be used for determining volumetric flow rate of flare vent gas provided the molecular weight of the flare vent gas is determined using compositional analysis as specified in paragraph (j) of this section so that the mass flow rate can be converted to volumetric flow at standard conditions using the following equation.

$$Q_{vol} = (Q_{mass})(385.3) / MWt$$

Where:

$Q_{vol}$  = Volumetric flow rate, standard cubic feet per second.

$Q_{mass}$  = Mass flow rate, pounds per second.

385.3 = Conversion factor, standard cubic feet per pound-mole.

$MWt$  = Molecular weight of the gas at the flow monitoring location, pounds per pound-mole.

(3) Mass flow monitors may be used for determining volumetric flow rate of assist air or assist steam. Use equation in paragraph (i)(2) of this section to convert mass flow rates to volumetric flow rates. Use a molecular weight of 18 pounds per pound-mole for assist steam and use a molecular weight of 29 pounds per pound-mole for assist air.

(4) Continuous pressure/temperature monitoring system(s) and appropriate engineering calculations may be used in lieu of a continuous volumetric flow monitoring systems provided the molecular weight of the gas is known. For assist steam, use a molecular weight of 18 pounds per pound-mole. For assist air, use a molecular weight of 29 pounds per pound-mole. For flare vent gas, molecular weight must be determined using compositional analysis as specified in paragraph (j) of this section.

(j) Flare vent gas composition monitoring. The owner or operator shall determine the concentration of individual components in the flare vent gas using either the methods provided in paragraph (j)(1) or (2) of this section, to assess compliance with the operating limits in paragraph (e) of this section and, if applicable, paragraphs (d) and (f) of this section. Alternatively, the owner or operator may elect to directly monitor the net heating value of the flare vent gas following the methods provided in paragraphs (j)(3) of this section and, if desired, may directly measure the hydrogen concentration in the flare vent gas following the methods provided in paragraphs (j)(4) of this section. The owner or operator may elect to use different monitoring methods for different gaseous streams that make up the flare vent gas using different methods provided the composition or net heating value of all gas streams that contribute to the flare vent gas are determined.

(1) Except as provided in paragraphs (j)(5) and (6) of this section, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring (i.e., at least once every 15-minutes), calculating, and recording the individual component concentrations present in the flare vent gas.

(2) Except as provided in paragraphs (j)(5) and (6) of this section, the owner or operator shall install, operate, and maintain a grab sampling system capable of collecting an evacuated canister sample for subsequent compositional analysis at least once every eight hours while there is flow of regulated material to the flare. Subsequent compositional analysis of the samples must be performed according to Method 18 of 40 CFR part 60, appendix A-6, ASTM D6420-99 (Reapproved 2010), ASTM D1945-03 (Reapproved 2010), ASTM D1945-14 or ASTM UOP539-12 (all incorporated by reference—see §63.14).

(3) Except as provided in paragraphs (j)(5) and (6) of this section, the owner or operator shall install, operate, calibrate, and maintain a calorimeter capable of continuously measuring, calculating, and recording NHV<sub>g</sub> at standard conditions.

(4) If the owner or operator uses a continuous net heating value monitor according to paragraph (j)(3) of this section, the owner or operator may, at their discretion, install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the hydrogen concentration in the flare vent gas.

(5) Direct compositional or net heating value monitoring is not required for purchased ("pipeline quality") natural gas streams. The net heating value of purchased natural gas streams may be determined using annual or more frequent grab sampling at any one representative location. Alternatively, the net heating value of any purchased natural gas stream can

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be assumed to be 920 Btu/scf.

(6) Direct compositional or net heating value monitoring is not required for gas streams that have been demonstrated to have consistent composition (or a fixed minimum net heating value) according to the methods in paragraphs (j)(6)(i) through (v) of this section.

(i) The owner or operator shall submit to the Administrator a written application for an exemption from monitoring. The application must contain the following information:

(A) A description of the flare gas stream/system to be considered, including submission of a portion of the appropriate piping diagrams indicating the boundaries of the flare gas stream/system and the affected flare(s) to be considered;

(B) A statement that there are no crossover or entry points to be introduced into the flare gas stream/system (this should be shown in the piping diagrams) prior to the point where the flow rate of the gas streams is measured;

(C) An explanation of the conditions that ensure that the flare gas net heating value is consistent and, if flare gas net heating value is expected to vary (e.g., due to product loading of different material), the conditions expected to produce the flare gas with the lowest net heating value;

(D) The supporting test results from sampling the requested flare gas stream/system for the net heating value. Sampling data must include, at minimum, 2 weeks of daily measurement values (14 grab samples) for frequently operated flare gas streams/systems; for infrequently operated flare gas streams/systems, seven grab samples must be collected unless other additional information would support reduced sampling. If the flare gas stream composition can vary, samples must be taken during those conditions expected to result in lowest net heating value identified in paragraph (j)(6)(i)(C) of this section. The owner or operator shall determine net heating value for the gas stream using either gas composition analysis or net heating value monitor (with optional hydrogen concentration analyzer) according to the method provided in paragraph (l) of this section; and

(E) A description of how the 2 weeks (or seven samples for infrequently operated flare gas streams/systems) of monitoring results compares to the typical range of net heating values expected for the flare gas stream/system going to the affected flare (e.g., "the samples are representative of typical operating conditions of the flare gas stream going to the loading rack flare" or "the samples are representative of conditions expected to yield the lowest net heating value of the flare gas stream going to the loading rack flare").

(F) The net heating value to be used for all flows of the flare vent gas from the flare gas stream/system covered in the application. A single net heating value must be assigned to the flare vent gas either by selecting the lowest net heating value measured in the sampling program or by determining the 95th percent confidence interval on the mean value of all samples collected using the t-distribution statistic (which is 1.943 for 7 grab samples or 1.771 for 14 grab samples).

(ii) The effective date of the exemption is the date of submission of the information required in paragraph (j)(6)(i) of this section.

(iii) No further action is required unless refinery operating conditions change in such a way that affects the exempt fuel gas stream/system (e.g., the stream composition changes). If such a change occurs, the owner or operator shall follow the procedures in paragraph (j)(6)(iii)(A), (B), or (C) of this section.

(A) If the operation change results in a flare vent gas net heating value that is still within the range of net heating values included in the original application, the owner or operator shall determine the net heating value on a grab sample and record the results as proof that the net heating value assigned to the vent gas stream in the original application is still appropriate.

(B) If the operation change results in a flare vent gas net heating value that is lower than the net heating value assigned to the vent gas stream in the original application, the owner or operator may submit new information following the procedures of paragraph (j)(6)(i) of this section within 60 days (or within 30 days after the seventh grab sample is tested for infrequently operated process units).

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(C) If the operation change results in a flare vent gas net heating value has greater variability in the flare gas stream/system such the owner or operator chooses not to submit new information to support an exemption, the owner or operator must begin monitoring the composition or net heat content of the flare vent gas stream using the methods in this section (i.e., grab samples every 8 hours until such time a continuous monitor, if elected, is installed).

(k) Calculation methods for cumulative flow rates and determining compliance with  $V_{tip}$  operating limits. The owner or operator shall determine  $V_{tip}$  on a 15-minute block average basis according to the following requirements.

(1) The owner or operator shall use design and engineering principles to determine the unobstructed cross sectional area of the flare tip. The unobstructed cross sectional area of the flare tip is the total tip area that vent gas can pass through. This area does not include any stability tabs, stability rings, and upper steam or air tubes because flare vent gas does not exit through them.

(2) The owner or operator shall determine the cumulative volumetric flow of flare vent gas for each 15-minute block average period using the data from the continuous flow monitoring system required in paragraph (i) of this section according to the following requirements, as applicable. If desired, the cumulative flow rate for a 15-minute block period only needs to include flow during those periods when regulated material is sent to the flare, but owners or operators may elect to calculate the cumulative flow rates across the entire 15-minute block period for any 15-minute block period where there is regulated material flow to the flare.

(i) Use set 15-minute time periods starting at 12 midnight to 12:15 a.m., 12:15 a.m. to 12:30 a.m. and so on concluding at 11:45 p.m. to midnight when calculating 15-minute block average flow volumes.

(ii) If continuous pressure/temperature monitoring system(s) and engineering calculations are used as allowed under paragraph (i)(4) of this section, the owner or operator shall, at a minimum, determine the 15-minute block average temperature and pressure from the monitoring system and use those values to perform the engineering calculations to determine the cumulative flow over the 15-minute block average period. Alternatively, the owner or operator may divide the 15-minute block average period into equal duration subperiods (e.g., three 5-minute periods) and determine the average temperature and pressure for each subperiod, perform engineering calculations to determine the flow for each subperiod, then add the volumetric flows for the subperiods to determine the cumulative volumetric flow of vent gas for the 15-minute block average period.

(3) The 15-minute block average  $V_{tip}$  shall be calculated using the following equation.

$$V_{tip} = Q_{cum} / \text{Area}(900)$$

Where:

$V_{tip}$  = Flare tip velocity, feet per second.

$Q_{cum}$  = Cumulative volumetric flow over 15-minute block average period, actual cubic feet.

Area = Unobstructed area of the flare tip, square feet.

900 = Conversion factor, seconds per 15-minute block average.

(4) If the owner or operator chooses to comply with paragraph (d)(2) of this section, the owner or operator shall also determine the net heating value of the flare vent gas following the requirements in paragraphs (j) and (l) of this section and calculate  $V_{max}$  using the equation in paragraph (d)(2) of this section in order to compare  $V_{tip}$  to  $V_{max}$  on a 15-minute block average basis.

(l) Calculation methods for determining flare vent gas net heating value. The owner or operator shall determine the net heating value of the flare vent gas (NHV<sub>g</sub>) based on the composition monitoring data on a 15-minute block average basis according to the following requirements.

(1) If compositional analysis data are collected as provided in paragraph (j)(1) or (2) of this section, the owner or

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operator shall determine NHV<sub>g</sub> of a specific sample by using the following equation.

[Refer to Regulation for equation]

Where:

NHV<sub>g</sub> = Net heating value of flare vent gas, Btu/scf.

i = Individual component in flare vent gas.

n = Number of components in flare vent gas.

x<sub>i</sub> = Concentration of component i in flare vent gas, volume fraction.

NHV<sub>i</sub> = Net heating value of component i according to table 12 of this subpart, Btu/scf. If the component is not specified in table 12 of this subpart, the heats of combustion may be determined using any published values where the net enthalpy per mole of offgas is based on combustion at 25 °C and 1 atmosphere (or constant pressure) with offgas water in the gaseous state, but the standard temperature for determining the volume corresponding to one mole of vent gas is 20 °C.

(2) If direct net heating value monitoring data are collected as provided in paragraph (j)(3) of this section but a hydrogen concentration monitor is not used, the owner or operator shall use the direct output of the monitoring system(s) (in Btu/scf) to determine the NHV<sub>g</sub> for the sample.

(3) If direct net heating value monitoring data are collected as provided in paragraph (j)(3) of this section and hydrogen concentration monitoring data are collected as provided in paragraph (j)(4) of this section, the owner or operator shall use the following equation to determine NHV<sub>g</sub> for each sample measured via the net heating value monitoring system.

$$\text{NHV}_g = \text{NHV}_{\text{measured}} + 938x_{\text{H}_2}$$

Where:

NHV<sub>g</sub> = Net heating value of flare vent gas, Btu/scf.

NHV<sub>measured</sub> = Net heating value of flare vent gas stream as measured by the continuous net heating value monitoring system, Btu/scf.

x<sub>H<sub>2</sub></sub> = Concentration of hydrogen in flare vent gas at the time the sample was input into the net heating value monitoring system, volume fraction.

938 = Net correction for the measured heating value of hydrogen (1,212 - 274), Btu/scf.

(4) Use set 15-minute time periods starting at 12 midnight to 12:15 a.m., 12:15 a.m. to 12:30 a.m. and so on concluding at 11:45 p.m. to midnight when calculating 15-minute block averages.

(5) When a continuous monitoring system is used as provided in paragraph (j)(1) or (3) of this section and, if applicable, paragraph (j)(4) of this section, the owner or operator may elect to determine the 15-minute block average NHV<sub>g</sub> using either the calculation methods in paragraph (l)(5)(i) of this section or the calculation methods in paragraph (l)(5)(ii) of this section. The owner or operator may choose to comply using the calculation methods in paragraph (l)(5)(i) of this section for some flares at the petroleum refinery and comply using the calculation methods (l)(5)(ii) of this section for other flares. However, for each flare, the owner or operator must elect one calculation method that will apply at all times, and use that method for all continuously monitored flare vent streams associated with that flare. If the owner or operator intends to change the calculation method that applies to a flare, the owner or operator must notify the Administrator 30 days in advance of such a change.

(i) Feed-forward calculation method. When calculating NHV<sub>g</sub> for a specific 15-minute block:

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(A) Use the results from the first sample collected during an event, (for periodic flare vent gas flow events) for the first 15-minute block associated with that event.

(B) If the results from the first sample collected during an event (for periodic flare vent gas flow events) are not available until after the second 15-minute block starts, use the results from the first sample collected during an event for the second 15-minute block associated with that event.

(C) For all other cases, use the results that are available from the most recent sample prior to the 15-minute block period for that 15-minute block period for all flare vent gas streams. For the purpose of this requirement, use the time that the results become available rather than the time the sample was collected. For example, if a sample is collected at 12:25 a.m. and the analysis is completed at 12:38 a.m., the results are available at 12:38 a.m. and these results would be used to determine compliance during the 15-minute block period from 12:45 a.m. to 1:00 a.m.

(ii) Direct calculation method. When calculating NHV<sub>g</sub> for a specific 15-minute block:

(A) If the results from the first sample collected during an event (for periodic flare vent gas flow events) are not available until after the second 15-minute block starts, use the results from the first sample collected during an event for the first 15-minute block associated with that event.

(B) For all other cases, use the arithmetic average of all NHV<sub>g</sub> measurement data results that become available during a 15-minute block to calculate the 15-minute block average for that period. For the purpose of this requirement, use the time that the results become available rather than the time the sample was collected. For example, if a sample is collected at 12:25 a.m. and the analysis is completed at 12:38 a.m., the results are available at 12:38 a.m. and these results would be used to determine compliance during the 15-minute block period from 12:30 a.m. to 12:45 a.m.

(6) When grab samples are used to determine flare vent gas composition:

(i) Use the analytical results from the first grab sample collected for an event for all 15-minute periods from the start of the event through the 15-minute block prior to the 15-minute block in which a subsequent grab sample is collected.

(ii) Use the results from subsequent grab sampling events for all 15 minute periods starting with the 15-minute block in which the sample was collected and ending with the 15-minute block prior to the 15-minute block in which the next grab sample is collected. For the purpose of this requirement, use the time the sample was collected rather than the time the analytical results become available.

(7) If the owner or operator monitors separate gas streams that combine to comprise the total flare vent gas flow, the 15-minute block average net heating value shall be determined separately for each measurement location according to the methods in paragraphs (l)(1) through (6) of this section and a flow-weighted average of the gas stream net heating values shall be used to determine the 15-minute block average net heating value of the cumulative flare vent gas.

(m) Calculation methods for determining combustion zone net heating value. The owner or operator shall determine the net heating value of the combustion zone gas (NHV<sub>cz</sub>) as specified in paragraph (m)(1) or (2) of this section, as applicable.

(1) Except as specified in paragraph (m)(2) of this section, determine the 15-minute block average NHV<sub>cz</sub> based on the 15-minute block average vent gas and assist gas flow rates using the following equation. For periods when there is no assist steam flow or pre-mix assist air flow, NHV<sub>cz</sub> = NHV<sub>g</sub>.

$$\text{NHV}_{cz} = (\text{Qvg})(\text{NHV}_g) / (\text{Qvg} + \text{Qs} + \text{Qa,premix})$$

Where:

NHV<sub>cz</sub> = Net heating value of combustion zone gas, Btu/scf.

NHV<sub>g</sub> = Net heating value of flare vent gas for the 15-minute block period, Btu/scf.

Qvg = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

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$Q_s$  = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$  = Cumulative volumetric flow of pre-mix assist air during the 15-minute block period, scf.

(2) Owners or operators of flares that use the feed-forward calculation methodology in paragraph (l)(5)(i) of this section and that monitor gas composition or net heating value in a location representative of the cumulative vent gas stream and that directly monitor supplemental natural gas flow additions to the flare must determine the 15-minute block average  $NH_{Vcz}$  using the following equation.

$$NH_{Vcz} = [(Q_{vg} - Q_{NG2} + Q_{NG1}) \times NH_{Vvg} + (Q_{NG2} - Q_{NG1}) \times NH_{VNG}] / (Q_{vg} + Q_s + Q_{a,premix})$$

Where:

$NH_{Vcz}$  = Net heating value of combustion zone gas, Btu/scf.

$NH_{Vvg}$  = Net heating value of flare vent gas for the 15-minute block period, Btu/scf.

$Q_{vg}$  = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

$Q_{NG2}$  = Cumulative volumetric flow of supplemental natural gas to the flare during the 15-minute block period, scf.

$Q_{NG1}$  = Cumulative volumetric flow of supplemental natural gas to the flare during the previous 15-minute block period, scf. For the first 15-minute block period of an event, use the volumetric flow value for the current 15-minute block period, i.e.,  $Q_{NG1} = Q_{NG2}$ .

$NH_{VNG}$  = Net heating value of supplemental natural gas to the flare for the 15-minute block period determined according to the requirements in paragraph (j)(5) of this section, Btu/scf.

$Q_s$  = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$  = Cumulative volumetric flow of pre-mix assist air during the 15-minute block period, scf.

(n) Calculation methods for determining the net heating value dilution parameter. The owner or operator shall determine the net heating value dilution parameter ( $NH_{Vdil}$ ) as specified in paragraph (n)(1) or (2) of this section, as applicable.

(1) Except as specified in paragraph (n)(2) of this section, determine the 15-minute block average  $NH_{Vdil}$  based on the 15-minute block average vent gas and perimeter assist air flow rates using the following equation only during periods when perimeter assist air is used. For 15-minute block periods when there is no cumulative volumetric flow of perimeter assist air, the 15-minute block average  $NH_{Vdil}$  parameter does not need to be calculated.

$$NH_{Vdil} = [Q_{vg} \times Diam \times NH_{Vvg}] / (Q_{vg} + Q_s + Q_{a,premix} + Q_{a,perimeter})$$

Where:

$NH_{Vdil}$  = Net heating value dilution parameter, Btu/ft<sup>2</sup>.

$NH_{Vvg}$  = Net heating value of flare vent gas determined for the 15-minute block period, Btu/scf.

$Q_{vg}$  = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

$Diam$  = Effective diameter of the unobstructed area of the flare tip for flare vent gas flow, ft. Use the area as determined in paragraph (k)(1) of this section and determine the diameter as

$$Diam = 2 \times \text{square root of } (Area/\pi)$$



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$Q_s$  = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$  = Cumulative volumetric flow of premix assist air during the 15-minute block period, scf.

$Q_{a,perimeter}$  = Cumulative volumetric flow of perimeter assist air during the 15-minute block period, scf.

(2) Owners or operators of flares that use the feed-forward calculation methodology in paragraph (l)(5)(i) of this section and that monitor gas composition or net heating value in a location representative of the cumulative vent gas stream and that directly monitor supplemental natural gas flow additions to the flare must determine the 15-minute block average  $NH_{vdil}$  using the following equation only during periods when perimeter assist air is used. For 15-minute block periods when there is no cumulative volumetric flow of perimeter assist air, the 15-minute block average  $NH_{vdil}$  parameter does not need to be calculated.

[Refer to regulation for equation]

Where:

$NH_{vdil}$  = Net heating value dilution parameter, Btu/ft<sup>2</sup>.

$NH_{vg}$  = Net heating value of flare vent gas determined for the 15-minute block period, Btu/scf.

$Q_{vg}$  = Cumulative volumetric flow of flare vent gas during the 15-minute block period, scf.

$Q_{NG2}$  = Cumulative volumetric flow of supplemental natural gas to the flare during the 15-minute block period, scf.

$Q_{NG1}$  = Cumulative volumetric flow of supplemental natural gas to the flare during the previous 15-minute block period, scf. For the first 15-minute block period of an event, use the volumetric flow value for the current 15-minute block period, i.e.,  $Q_{NG1} = Q_{NG2}$ .

$NH_{VNG}$  = Net heating value of supplemental natural gas to the flare for the 15-minute block period determined according to the requirements in paragraph (j)(5) of this section, Btu/scf.

$Diam$  = Effective diameter of the unobstructed area of the flare tip for flare vent gas flow, ft. Use the area as determined in paragraph (k)(1) of this section and determine the diameter as

$$Diam = 2 \times \text{square root of } (Area / \pi)$$

$Q_s$  = Cumulative volumetric flow of total steam during the 15-minute block period, scf.

$Q_{a,premix}$  = Cumulative volumetric flow of premix assist air during the 15-minute block period, scf.

$Q_{a,perimeter}$  = Cumulative volumetric flow of perimeter assist air during the 15-minute block period, scf.

(o) Emergency flaring provisions. The owner or operator of a flare that has the potential to operate above its smokeless capacity under any circumstance shall comply with the provisions in paragraphs (o)(1) through (8) of this section.

(1) Develop a flare management plan to minimize flaring during periods of startup, shutdown, or emergency releases. The flare management plan must include the information described in paragraphs (o)(1)(i) through (vii) of this section.

(i) A listing of all refinery process units, ancillary equipment, and fuel gas systems connected to the flare for each affected flare.

(ii) An assessment of whether discharges to affected flares from these process units, ancillary equipment and fuel gas systems can be minimized or prevented during periods of startup, shutdown, or emergency releases. The flare minimization assessment must (at a minimum) consider the items in paragraphs (o)(1)(ii)(A) through (C) of this section. The assessment must provide clear rationale in terms of costs (capital and annual operating), natural gas offset credits (if

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applicable), technical feasibility, secondary environmental impacts and safety considerations for the selected minimization alternative(s) or a statement, with justifications, that flow reduction could not be achieved. Based upon the assessment, each owner or operator of an affected flare shall identify the minimization alternatives that it has implemented by the due date of the flare management plan and shall include a schedule for the prompt implementation of any selected measures that cannot reasonably be completed as of that date.

(A) Modification in startup and shutdown procedures to reduce the quantity of process gas discharge to the flare.

(B) Implementation of prevention measures listed for pressure relief devices in §63.648(j)(5) for each pressure relief device that can discharge to the flare.

(C) Installation of a flare gas recovery system or, for facilities that are fuel gas rich, a flare gas recovery system and a co-generation unit or combined heat and power unit.

(iii) A description of each affected flare containing the information in paragraphs (o)(1)(iii)(A) through (G) of this section.

(A) A general description of the flare, including whether it is a ground flare or elevated (including height), the type of assist system (e.g., air, steam, pressure, non-assisted), whether the flare is used on a routine basis or if it is only used during periods of startup, shutdown or emergency release, and whether the flare is equipped with a flare gas recovery system.

(B) The smokeless capacity of the flare based on design conditions. Note: A single value must be provided for the smokeless capacity of the flare.

(C) The maximum vent gas flow rate (hydraulic load capacity).

(D) The maximum supplemental gas flow rate.

(E) For flares that receive assist steam, the minimum total steam rate and the maximum total steam rate.

(F) For flares that receive assist air, an indication of whether the fan/blower is single speed, multi-fixed speed (e.g., high, medium, and low speeds), or variable speeds. For fans/blowers with fixed speeds, provide the estimated assist air flow rate at each fixed speed. For variable speeds, provide the design fan curve (e.g., air flow rate as a function of power input).

(G) Simple process flow diagram showing the locations of the flare following components of the flare: Flare tip (date installed, manufacturer, nominal and effective tip diameter, tip drawing); knockout or surge drum(s) or pot(s) (including dimensions and design capacities); flare header(s) and subheader(s); assist system; and ignition system.

(iv) Description and simple process flow diagram showing all gas lines (including flare waste gas, purge or sweep gas (as applicable), supplemental gas) that are associated with the flare. For purge, sweep, supplemental gas, identify the type of gas used. Designate which lines are exempt from composition or net heating value monitoring and why (e.g., natural gas, gas streams that have been demonstrated to have consistent composition, pilot gas). Designate which lines are monitored and identify on the process flow diagram the location and type of each monitor. Designate the pressure relief devices that are vented to the flare.

(v) For each flow rate, gas composition, net heating value or hydrogen concentration monitor identified in paragraph (o)(1)(iv) of this section, provide a detailed description of the manufacturer's specifications, including, but not limited to, make, model, type, range, precision, accuracy, calibration, maintenance and quality assurance procedures.

(vi) For each pressure relief device vented to the flare identified in paragraph (o)(1)(iv) of this section, provide a detailed description of each pressure release device, including type of relief device (rupture disc, valve type) diameter of the relief device opening, set pressure of the relief device and listing of the prevention measures implemented. This information may be maintained in an electronic database on-site and does not need to be submitted as part of the flare management plan unless requested to do so by the Administrator.

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(vi) Procedures to minimize or eliminate discharges to the flare during the planned startup and shutdown of the refinery process units and ancillary equipment that are connected to the affected flare, together with a schedule for the prompt implementation of any procedures that cannot reasonably be implemented as of the date of the submission of the flare management plan.

(2) Each owner or operator required to develop and implement a written flare management plan as described in paragraph (o)(1) of this section must submit the plan to the Administrator as described in paragraphs (o)(2)(i) through (iii) of this section.

(i) The owner or operator must develop and implement the flare management plan no later than January 30, 2019 or at startup for a new flare that commenced construction on or after February 1, 2016.

(ii) The owner or operator must comply with the plan as submitted by the date specified in paragraph (o)(2)(i) of this section. The plan should be updated periodically to account for changes in the operation of the flare, such as new connections to the flare or the installation of a flare gas recovery system, but the plan need be re-submitted to the Administrator only if the owner or operator alters the design smokeless capacity of the flare. The owner or operator must comply with the updated plan as submitted.

(iii) All versions of the plan submitted to the Administrator shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143-01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to refineryRTR@epa.gov.

(3) The owner or operator of a flare subject to this subpart shall conduct a root cause analysis and a corrective action analysis for each flow event that contains regulated material and that meets either the criteria in paragraph (o)(3)(i) or (ii) of this section.

(i) The vent gas flow rate exceeds the smokeless capacity of the flare and visible emissions are present from the flare for more than 5 minutes during any 2 consecutive hours during the release event.

(ii) The vent gas flow rate exceeds the smokeless capacity of the flare and the 15-minute block average flare tip velocity exceeds the maximum flare tip velocity determined using the methods in paragraph (d)(2) of this section.

(4) A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a flare flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in paragraphs (o)(4)(i) through (v) of this section.

(i) You may conduct a single root cause analysis and corrective action analysis for a single continuous flare flow event that meets both of the criteria in paragraphs (o)(3)(i) and (ii) of this section.

(ii) You may conduct a single root cause analysis and corrective action analysis for a single continuous flare flow event regardless of the number of 15-minute block periods in which the flare tip velocity was exceeded or the number of 2 hour periods that contain more the 5 minutes of visible emissions.

(iii) You may conduct a single root cause analysis and corrective action analysis for a single event that causes two or more flares that are operated in series (i.e., cascaded flare systems) to have a flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section.

(iv) You may conduct a single root cause analysis and corrective action analysis for a single event that causes two or more flares to have a flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this section, regardless of the configuration of the flares, if the root cause is reasonably expected to be a force majeure event, as defined in this subpart.

(v) Except as provided in paragraphs (o)(4)(iii) and (iv) of this section, if more than one flare has a flow event that meets the criteria in paragraph (o)(3)(i) or (ii) of this section during the same time period, an initial root cause analysis shall be conducted separately for each flare that has a flow event meeting the criteria in paragraph (o)(3)(i) or (ii) of this

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section. If the initial root cause analysis indicates that the flow events have the same root cause(s), the initially separate root cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

(5) Each owner or operator of a flare required to conduct a root cause analysis and corrective action analysis as specified in paragraphs (o)(3) and (4) of this section shall implement the corrective action(s) identified in the corrective action analysis in accordance with the applicable requirements in paragraphs (o)(5)(i) through (iii) of this section.

(i) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that no corrective action should be implemented, the owner or operator shall record and explain the basis for that conclusion no later than 45 days following the event.

(ii) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, the owner or operator shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(iii) No later than 45 days following the event for which a root cause and corrective action analyses were required, the owner or operator shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(6) The owner or operator shall determine the total number of events for which a root cause and corrective action analyses was required during the calendar year for each affected flare separately for events meeting the criteria in paragraph (o)(3)(i) of this section and those meeting the criteria in paragraph (o)(3)(ii) of this section. For the purpose of this requirement, a single root cause analysis conducted for an event that met both of the criteria in paragraphs (o)(3)(i) and (ii) of this section would be counted as an event under each of the separate criteria counts for that flare. Additionally, if a single root cause analysis was conducted for an event that caused multiple flares to meet the criteria in paragraph (o)(3)(i) or (ii) of this section, that event would count as an event for each of the flares for each criteria in paragraph (o)(3) of this section that was met during that event. The owner or operator shall also determine the total number of events for which a root cause and corrective action analyses was required and the analyses concluded that the root cause was a force majeure event, as defined in this subpart.

(7) The following events would be a violation of this emergency flaring work practice standard.

(i) Any flow event for which a root cause analysis was required and the root cause was determined to be operator error or poor maintenance.

(ii) Two visible emissions exceedance events meeting the criteria in paragraph (o)(3)(i) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for the same root cause for the same equipment.

(iii) Two flare tip velocity exceedance events meeting the criteria in paragraph (o)(3)(ii) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for the same root cause for the same equipment.

(iv) Three visible emissions exceedance events meeting the criteria in paragraph (o)(3)(i) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for any reason.

(v) Three flare tip velocity exceedance events meeting the criteria in paragraph (o)(3)(ii) of this section that were not caused by a force majeure event from a single flare in a 3 calendar year period for any reason.

(p) Flare monitoring records. The owner or operator shall keep the records specified in §63.655(i)(9).

(q) Reporting. The owner or operator shall comply with the reporting requirements specified in §63.655(g)(11).

(r) Alternative means of emissions limitation. An owner or operator may request approval from the Administrator for site-



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specific operating limits that shall apply specifically to a selected flare. Site-specific operating limits include alternative threshold values for the parameters specified in paragraphs (d) through (f) of this section as well as threshold values for operating parameters other than those specified in paragraphs (d) through (f) of this section. The owner or operator must demonstrate that the flare achieves 96.5 percent combustion efficiency (or 98 percent destruction efficiency) using the site-specific operating limits based on a performance evaluation as described in paragraph (r)(1) of this section. The request shall include information as described in paragraph (r)(2) of this section. The request shall be submitted and followed as described in paragraph (r)(3) of this section.

(1) The owner or operator shall prepare and submit a site-specific test plan and receive approval of the site-specific performance evaluation plan prior to conducting any flare performance evaluation test runs intended for use in developing site-specific operating limits. The site-specific performance evaluation plan shall include, at a minimum, the elements specified in paragraphs (r)(1)(i) through (ix) of this section. Upon approval of the site-specific performance evaluation plan, the owner or operator shall conduct performance evaluation test runs for the flare following the procedures described in the site-specific performance evaluation plan.

(i) The design and dimensions of the flare, flare type (air-assisted only, steam-assisted only, air- and steam-assisted, pressure-assisted, or non-assisted), and description of gas being flared, including quantity of gas flared, frequency of flaring events (if periodic), expected net heating value of flare vent gas, minimum total steam assist rate.

(ii) The operating conditions (vent gas compositions, vent gas flow rates and assist flow rates, if applicable) likely to be encountered by the flare during normal operations and the operating conditions for the test period.

(iii) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the flare combustion or destruction efficiency.

(iv) Site-specific operating parameters to be monitored continuously during the flare performance evaluation. These parameters may include but are not limited to vent gas flow rate, steam and/or air assist flow rates, and flare vent gas composition. If new operating parameters are proposed for use other than those specified in paragraphs (d) through (f) of this section, an explanation of the relevance of the proposed operating parameter(s) as an indicator of flare combustion performance and why the alternative operating parameter(s) can adequately ensure that the flare achieves the required combustion efficiency.

(v) A detailed description of the measurement methods, monitored pollutant(s), measurement locations, measurement frequency, and recording frequency proposed for both emission measurements and flare operating parameters.

(vi) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the flare operating parameters.

(vii) The minimum number and length of test runs and range of operating values to be evaluated during the performance evaluation. A sufficient number of test runs shall be conducted to identify the point at which the combustion/destruction efficiency of the flare deteriorates.

(viii) [Reserved]

(ix) Test schedule.

(2) The request for flare-specific operating limits shall include sufficient and appropriate data, as determined by the Administrator, to allow the Administrator to confirm that the selected site-specific operating limit(s) adequately ensures that the flare destruction efficiency is 98 percent or greater or that the flare combustion efficiency is 96.5 percent or greater at all times. At a minimum, the request shall contain the information described in paragraphs (r)(2)(i) through (iv) of this section.

(i) The design and dimensions of the flare, flare type (air-assisted only, steam-assisted only, air- and steam-assisted, pressure-assisted, or non-assisted), and description of gas being flared, including quantity of gas flared, frequency of flaring events (if periodic), expected net heating value of flare vent gas, minimum total steam assist rate.

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(ii) Results of each performance evaluation test run conducted, including, at a minimum:

(A) The measured combustion/destruction efficiency.

(B) The measured or calculated operating parameters for each test run. If operating parameters are calculated, the raw data from which the parameters are calculated must be included in the test report.

(C) Measurement location descriptions for both emission measurements and flare operating parameters.

(D) Description of sampling and analysis procedures (including number and length of test runs) and any modifications to standard procedures. If there were deviations from the approved test plan, a detailed description of the deviations and rationale why the test results or calculation procedures used are appropriate.

(E) Operating conditions (e.g., vent gas composition, assist rates, etc.) that occurred during the test.

(F) Quality assurance procedures.

(G) Records of calibrations.

(H) Raw data sheets for field sampling.

(I) Raw data sheets for field and laboratory analyses.

(J) Documentation of calculations.

(iii) The selected flare-specific operating limit values based on the performance evaluation test results, including the averaging time for the operating limit(s), and rationale why the selected values and averaging times are sufficiently stringent to ensure proper flare performance. If new operating parameters or averaging times are proposed for use other than those specified in paragraphs (d) through (f) of this section, an explanation of why the alternative operating parameter(s) or averaging time(s) adequately ensures the flare achieves the required combustion efficiency.

(iv) The means by which the owner or operator will document on-going, continuous compliance with the selected flare-specific operating limit(s), including the specific measurement location and frequencies, calculation procedures, and records to be maintained.

(3) The request shall be submitted as described in paragraphs (r)(3)(i) through (iv) of this section.

(i) The owner or operator may request approval from the Administrator at any time upon completion of a performance evaluation conducted following the methods in an approved site-specific performance evaluation plan for an operating limit(s) that shall apply specifically to that flare.

(ii) The request must be submitted to the Administrator for approval. The owner or operator must continue to comply with the applicable standards for flares in this subpart until the requirements in §63.6(g)(1) are met and a notice is published in the Federal Register allowing use of such an alternative means of emission limitation.

(iii) The request shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143-01), Attention: Refinery Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to refineryrtr@epa.gov.

(iv) If the Administrator finds any deficiencies in the request, the request must be revised to address the deficiencies and be re-submitted for approval within 45 days of receipt of the notice of deficiencies. The owner or operator must comply with the revised request as submitted until it is approved.

(4) The approval process for a request for a flare-specific operating limit(s) is described in paragraphs (r)(4)(i) through (iii) of this section.

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(i) Approval by the Administrator of a flare-specific operating limit(s) request will be based on the completeness, accuracy and reasonableness of the request. Factors that the EPA will consider in reviewing the request for approval include, but are not limited to, those described in paragraphs (r)(4)(i)(A) through (C) of this section.

(A) The description of the flare design and operating characteristics.

(B) If a new operating parameter(s) other than those specified in paragraphs (d) through (f) of this section is proposed, the explanation of how the proposed operating parameter(s) serves a good indicator(s) of flare combustion performance.

(C) The results of the flare performance evaluation test runs and the establishment of operating limits that ensures that the flare destruction efficiency is 98 percent or greater or that the flare combustion efficiency is 96.5 percent or greater at all times.

(D) The completeness of the flare performance evaluation test report.

(ii) If the request is approved by the Administrator, a flare-specific operating limit(s) will be established at the level(s) demonstrated in the approved request.

(iii) If the Administrator finds any deficiencies in the request, the request must be revised to address the deficiencies and be re-submitted for approval.

[80 FR 75258, Dec. 1, 2015, as amended at 81 FR 45241, July 13, 2016]

**# 092 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.671]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Requirements for flare monitoring systems.**

(a) Operation of CPMS. For each CPMS installed to comply with applicable provisions in §63.670, the owner or operator shall install, operate, calibrate, and maintain the CPMS as specified in paragraphs (a)(1) through (8) of this section.

(1) Except for CPMS installed for pilot flame monitoring, all monitoring equipment must meet the applicable minimum accuracy, calibration and quality control requirements specified in table 13 of this subpart.

(2) The owner or operator shall ensure the readout (that portion of the CPMS that provides a visual display or record) or other indication of the monitored operating parameter from any CPMS required for compliance is readily accessible onsite for operational control or inspection by the operator of the source.

(3) All CPMS must complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period.

(4) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall operate all CPMS and collect data continuously at all times when regulated emissions are routed to the flare.

(5) The owner or operator shall operate, maintain, and calibrate each CPMS according to the CPMS monitoring plan specified in paragraph (b) of this section.

(6) For each CPMS except for CPMS installed for pilot flame monitoring, the owner or operator shall comply with the out-of-control procedures described in paragraph (c) of this section.

(7) The owner or operator shall reduce data from a CPMS as specified in paragraph (d) of this section.

(8) The CPMS must be capable of measuring the appropriate parameter over the range of values expected for that measurement location. The data recording system associated with each CPMS must have a resolution that is equal to or better than the required system accuracy.

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(b) CPMS monitoring plan. The owner or operator shall develop and implement a CPMS quality control program documented in a CPMS monitoring plan that covers each flare subject to the provisions in §63.670 and each CPMS installed to comply with applicable provisions in §63.670. The owner or operator shall have the CPMS monitoring plan readily available on-site at all times and shall submit a copy of the CPMS monitoring plan to the Administrator upon request by the Administrator. The CPMS monitoring plan must contain the information listed in paragraphs (b)(1) through (5) of this section.

(1) Identification of the specific flare being monitored and the flare type (air-assisted only, steam-assisted only, air- and steam-assisted, pressure-assisted, or non-assisted).

(2) Identification of the parameter to be monitored by the CPMS and the expected parameter range, including worst case and normal operation.

(3) Description of the monitoring equipment, including the information specified in paragraphs (b)(3)(i) through (vii) of this section.

(i) Manufacturer and model number for all monitoring equipment components installed to comply with applicable provisions in §63.670.

(ii) Performance specifications, as provided by the manufacturer, and any differences expected for this installation and operation.

(iii) The location of the CPMS sampling probe or other interface and a justification of how the location meets the requirements of paragraph (a)(1) of this section.

(iv) Placement of the CPMS readout, or other indication of parameter values, indicating how the location meets the requirements of paragraph (a)(2) of this section.

(v) Span of the CPMS. The span of the CPMS sensor and analyzer must encompass the full range of all expected values.

(vi) How data outside of the span of the CPMS will be handled and the corrective action that will be taken to reduce and eliminate such occurrences in the future.

(vii) Identification of the parameter detected by the parametric signal analyzer and the algorithm used to convert these values into the operating parameter monitored to demonstrate compliance, if the parameter detected is different from the operating parameter monitored.

(4) Description of the data collection and reduction systems, including the information specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) A copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard and to calculate the applicable averages.

(ii) Identification of whether the algorithm excludes data collected during CPMS breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable) and high-level adjustments.

(iii) If the data acquisition algorithm does not exclude data collected during CPMS breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable) and high-level adjustments, a description of the procedure for excluding this data when the averages calculated as specified in paragraph (e) of this section are determined.

(5) Routine quality control and assurance procedures, including descriptions of the procedures listed in paragraphs (b)(5)(i) through (vi) of this section and a schedule for conducting these procedures. The routine procedures must provide an assessment of CPMS performance.



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(i) Initial and subsequent calibration of the CPMS and acceptance criteria.

(ii) Determination and adjustment of the calibration drift of the CPMS.

(iii) Daily checks for indications that the system is responding. If the CPMS system includes an internal system check, the owner or operator may use the results to verify the system is responding, as long as the system provides an alarm to the owner or operator or the owner or operator checks the internal system results daily for proper operation and the results are recorded.

(iv) Preventive maintenance of the CPMS, including spare parts inventory.

(v) Data recording, calculations and reporting.

(vi) Program of corrective action for a CPMS that is not operating properly.

(c) Out-of-control periods. For each CPMS installed to comply with applicable provisions in §63.670 except for CPMS installed for pilot flame monitoring, the owner or operator shall comply with the out-of-control procedures described in paragraphs (c)(1) and (2) of this section.

(1) A CPMS is out-of-control if the zero (low-level), mid-level (if applicable) or high-level calibration drift exceeds two times the accuracy requirement of table 13 of this subpart.

(2) When the CPMS is out of control, the owner or operator shall take the necessary corrective action and repeat all necessary tests that indicate the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established in this section is conducted. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. The owner or operator shall not use data recorded during periods the CPMS is out of control in data averages and calculations, used to report emissions or operating levels, as specified in paragraph (d)(3) of this section.

(d) CPMS data reduction. The owner or operator shall reduce data from a CPMS installed to comply with applicable provisions in §63.670 as specified in paragraphs (d)(1) through (3) of this section.

(1) The owner or operator may round the data to the same number of significant digits used in that operating limit.

(2) Periods of non-operation of the process unit (or portion thereof) resulting in cessation of the emissions to which the monitoring applies must not be included in the 15-minute block averages.

(3) Periods when the CPMS is out of control must not be included in the 15-minute block averages.

(e) Additional requirements for gas chromatographs. For monitors used to determine compositional analysis for net heating value per §63.670(j)(1), the gas chromatograph must also meet the requirements of paragraphs (e)(1) through (3) of this section.

(1) The quality assurance requirements are in table 13 of this subpart.

(2) The calibration gases must meet one of the following options:

(i) The owner or operator must use a calibration gas or multiple gases that include all of compounds listed in paragraphs (e)(2)(i)(A) through (K) of this section that may be reasonably expected to exist in the flare gas stream and optionally include any of the compounds listed in paragraphs (e)(2)(i)(L) through (O) of this section. All of the calibration gases may be combined in one cylinder. If multiple calibration gases are necessary to cover all compounds, the owner or operator must calibrate the instrument on all of the gases.

(A) Hydrogen.

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(B) Methane.

(C) Ethane.

(D) Ethylene.

(E) Propane.

(F) Propylene.

(G) n-Butane.

(H) iso-Butane.

(I) Butene (general). It is not necessary to separately speciate butene isomers, but the net heating value of trans-butene must be used for co-eluting butene isomers.

(J) 1,3-Butadiene. It is not necessary to separately speciate butadiene isomers, but you must use the response factor and net heating value of 1,3-butadiene for co-eluting butadiene isomers.

(K) n-Pentane. Use the response factor for n-pentane to quantify all C5+ hydrocarbons.

(L) Acetylene (optional).

(M) Carbon monoxide (optional).

(N) Propadiene (optional).

(O) Hydrogen sulfide (optional).

(ii) The owner or operator must use a surrogate calibration gas consisting of hydrogen and C1 through C5 normal hydrocarbons. All of the calibration gases may be combined in one cylinder. If multiple calibration gases are necessary to cover all compounds, the owner or operator must calibrate the instrument on all of the gases.

(3) If the owner or operator chooses to use a surrogate calibration gas under paragraph (e)(2)(ii) of this section, the owner or operator must comply with paragraphs (e)(3)(i) and (ii) of this section.

(i) Use the response factor for the nearest normal hydrocarbon (i.e., n-alkane) in the calibration mixture to quantify unknown components detected in the analysis.

(ii) Use the response factor for n-pentane to quantify unknown components detected in the analysis that elute after n-pentane.

[80 FR 75266, Dec. 1, 2015]

**# 093 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****When do I have to comply with this subpart?**

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by April 1, 2013, or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in §63.6(i).

(c) Not applicable (facility is not an area source)

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- (d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.
- (e) If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in §63.7491(l) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart and are no longer subject to part 60, subparts CCCC or DDDD beginning on the effective date of the switch as identified under the provisions of §60.2145(a)(2) and (3) or §60.2710(a)(2) and (3).
- (f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2016, you must be in compliance with the applicable existing source provisions of this subpart on the effective date such unit becomes subject to this subpart.
- (g) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for an exemption in §63.7491(i) that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart within 3 years after such unit becomes subject to this subpart.
- (h) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory after the compliance date of this subpart, you must be in compliance with the applicable existing source provisions of this subpart on the effective date of the fuel switch or physical change.
- (i) If you own or operate a new industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory, you must be in compliance with the applicable new source provisions of this subpart on the effective date of the fuel switch or physical change.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013; 80 FR 72807, Nov. 20, 2015]

**# 094 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7500]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What emission limits, work practice standards, and operating limits must I meet?**

- (a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.
- (1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate either steam, cogenerate steam with electricity, or both. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate only electricity. Boilers that perform multiple functions (cogeneration and electricity generation) or supply steam to common headers would calculate a total steam energy output using equation 21 of §63.7575 to demonstrate compliance with the output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (iii) of this section, but on or after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.
- (i) If your boiler or process heater commenced construction or reconstruction after June 4, 2010 and before May 20, 2011, you may comply with the emission limits in Table 1 or 11 to this subpart until January 31, 2016.
- (ii) If your boiler or process heater commenced construction or reconstruction on or after May 20, 2011 and before December 23, 2011, you may comply with the emission limits in Table 1 or 12 to this subpart until January 31, 2016.

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(iii) If your boiler or process heater commenced construction or reconstruction on or after December 23, 2011 and before April 1, 2013, you may comply with the emission limits in Table 1 or 13 to this subpart until January 31, 2016.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit or an alternative monitoring parameter, you must apply to the EPA Administrator for approval of alternative monitoring under §63.8(f).

(3) At all times, you must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

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(Excerpt from Table 2 Items 14 and 15)

14. The emission limit for units designed to burn liquid fuel are:

Hydrogen Chloride (HCL) 1.1E-03 lb/MMBtu of heat input or 1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh

Mercury (Hg) 2.0E-06 lb per MMBtu of heat input or 2.5E-06 lb per MMBtu of steam output or 2.8E-05 lb per MWh

15. The emission limits for units designed to burn heavy liquid fuel are:

Carbon Monoxide (CO) 130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average or 0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average

Filterable PM (or TSM) 6.2E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input) or 7.5E-02 lb per MMBtu of steam output or 8.6E-01 lb per MWh; or (2.5E-04 lb per MMBtu of steam output or 2.8E-03 lb per MWh)

[78 FR 7195, Jan. 31, 2013, as amended at 80 FR 72821, Nov. 20, 2015]

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Table 3 --

Item 1: If your unit is a new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater you must conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540.

Item 2: If your unit is a new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid you must conduct a tune-up of the boiler or process heater biennially as specified in §63.7540.

Item 3: If your unit is a new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 mmbtu/hr or greater, you must conduct a tune-up of the boiler or process heater annually as specified in §63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.

Item 4 - An existing boiler or process heater located at a major source facility, not including limited use units must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after

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January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in §63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in §63.7575:

- a. A visual inspection of the boiler or process heater system.
- b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
- c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
- d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
- e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.
- f. A list of cost-effective energy conservation measures that are within the facility's control.
- g. A list of the energy savings potential of the energy conservation measures identified.
- h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

Item 5 - An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 13 to this subpart during startup must:

- a. You must operate all CMS during startup.
- b. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis.
- c. You have the option of complying using either of the following work practice standards.
  - (1) If you choose to comply using definition (1) of "startup" in §63.7575, once you start firing fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose, OR
  - (2) If you choose to comply using definition (2) of "startup" in §63.7575, once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy. You must engage and operate PM control within one hour of first feeding fuels that are not clean fuels. You must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. You must develop and implement a written startup and shutdown plan, as specified in §63.7505(e).
- d. You must comply with all applicable emission limits at all times except during startup and shutdown periods at which time you must meet this work practice. You must collect monitoring data during periods of startup, as specified in

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§63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.7555.

Item 6 - An existing or new boiler or process heater subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart during shutdown must operate all CMS during shutdown. While firing fuels that are not clean fuels during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR but, in any case, when necessary to comply with other standards applicable to the source that require operation of the control device. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, refinery gas, and liquefied petroleum gas. You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in §63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in §63.7555.

[78 FR 7198, Jan. 31, 2013, as amended at 80 FR 72823, Nov. 20, 2015]

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Excerpt from Table 4 - Items 7-8

7. When complying with Table 2 emission limits using performance testing, you must meet these operating limits: For boilers and process heaters that demonstrate compliance with a performance test, maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test.

8. When complying with Table 2 emission limits using an oxygen analyzer system you must meet these operating limits: For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O<sub>2</sub> analyzer system as specified in §63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in §63.7525(a).

[80 FR 72874, Nov. 20, 2015]

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(b) As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in §63.7540. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart.

(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in §63.7540.

(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in §63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in §63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with items 5 and 6 of Table 3 to this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013; 80 FR 72807, Nov. 20, 2015]

**SECTION C. Site Level Requirements****# 095 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7505]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What are my general requirements for complying with this subpart?**

- (a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These emission and operating limits apply to you at all times the affected unit is operating except for the periods noted in §63.7500(f).
- (b) [Reserved]
- (c) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance stack testing, if subject to an applicable emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.
- (d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits through the use of CPMS, or with a CEMS or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).
- (1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in §63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of §63.7525. Using the process described in §63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.
- (i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
- (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
- (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).
- (2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.
- (i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);
- (ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and
- (iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c) (as applicable in Table 10 to this subpart), (e)(1), and (e)(2)(i).
- (3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

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(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit, and you choose to comply using definition (2) of "startup" in §63.7575, you must develop and implement a written startup and shutdown plan (SSP) according to the requirements in Table 3 to this subpart. The SSP must be maintained onsite and available upon request for public inspection.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7164, Jan. 31, 2013; 80 FR 72807, Nov. 20, 2015]

**# 096 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7510]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What are my initial compliance requirements and by what date must I conduct them?**

(a) For each boiler or process heater that is required or that you elect to demonstrate compliance with any of the applicable emission limits in Tables 1 or 2 or 11 through 13 of this subpart through performance (stack) testing, your initial compliance requirements include all the following:

(1) Conduct performance tests according to §63.7520 and Table 5 to this subpart.

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart, except as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For each boiler or process heater that burns a single type of fuel, you are not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart. For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as units that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under §63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those Gas 1 fuels according to §63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those non-Gas 1 gaseous fuels are subject to another subpart of this part, part 60, part 61, or part 65, you are not required to conduct a fuel analysis of those non-Gas 1 fuels according to §63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a)(2)(i) and (ii) of this section.

(3) Establish operating limits according to §63.7530 and Table 7 to this subpart.

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(Excerpt from Table 7 to Subpart DDDDD of Part 63—Establishing Operating Limits)

Item 4 - If you have an applicable emission limit for Carbon monoxide for which compliance is demonstrated by a performance test, and your operating limits are based on oxygen, you must Establish a unit-specific limit for minimum oxygen level according to §63.7530(b) using Data from the oxygen analyzer system specified in §63.7525(a), according to the following requirements:

(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests.

(b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test.

(c) Determine the lowest hourly average established during the performance test as your minimum operating limit.

Item 5 - If you have an applicable emission limit for any pollutant for which compliance is demonstrated by a performance test and your operating limits are based on boiler or process heater operating load, you must Establish a unit specific limit for maximum operating load according to §63.7520(c) using data from the operating load monitors or from steam generation monitors according to the following requirements:



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- (a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test.
- (b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
- (c) Determine the highest hourly average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

Operating limits must be confirmed or reestablished during performance tests.

For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

[80 FR 72827, Nov. 20, 2015]

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- (4) Conduct CMS performance evaluations according to §63.7525.
- (b) For each boiler or process heater that you elect to demonstrate compliance with the applicable emission limits in Tables 1 or 2 or 11 through 13 to this subpart for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6 to this subpart and establish operating limits according to §63.7530 and Table 8 to this subpart. The fuels described in paragraph (a)(2)(i) and (ii) of this section are exempt from these fuel analysis and operating limit requirements. The fuels described in paragraph (a)(2)(ii) of this section are exempt from the chloride fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or HCl are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section for the HAP for which CEMS are used.
- (c) If your boiler or process heater is subject to a carbon monoxide (CO) limit, your initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 to this subpart or conduct a performance evaluation of your continuous CO monitor, if applicable, according to §63.7525(a). Boilers and process heaters that use a CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, as specified in §63.7525(a), are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.
- (d) If your boiler or process heater is subject to a PM limit, your initial compliance demonstration for PM is to conduct a performance test in accordance with §63.7520 and Table 5 to this subpart.
- (e) For existing affected sources (as defined in §63.7490), you must complete the initial compliance demonstrations, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) no later than the compliance date specified in §63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in §63.7495.
- (f) For new or reconstructed affected sources (as defined in §63.7490), you must complete the initial compliance demonstration with the emission limits no later than July 30, 2013 or within 180 days after startup of the source, whichever is later. If you are demonstrating compliance with an emission limit in Tables 11 through 13 to this subpart that is less stringent (that is, higher) than the applicable emission limit in Table 1 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than July 29, 2016.
- (g) For new or reconstructed affected sources (as defined in §63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as

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specified in §63.7515(d) following the initial compliance date specified in §63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in §63.7515(d).

(h) For affected sources (as defined in §63.7490) that ceased burning solid waste consistent with §63.7495(e) and for which the initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(i) For an existing EGU that becomes subject after January 31, 2016, you must demonstrate compliance within 180 days after becoming an affected source.

(j) For existing affected sources (as defined in §63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in §63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in §63.7495.

(k) For affected sources, as defined in §63.7490, that switch subcategories consistent with §63.7545(h) after the initial compliance date, you must demonstrate compliance within 60 days of the effective date of the switch, unless you had previously conducted your compliance demonstration for this subcategory within the previous 12 months.

[78 FR 7164, Jan. 31, 2013, as amended at 80 FR 72808, Nov. 20, 2015]

**# 097 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**When must I conduct subsequent performance tests or fuel analyses, or tune-ups?**

(a) You must conduct all applicable performance tests according to §63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of this section. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of this section.

(b) If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 13 to this subpart, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to demonstrate compliance using emission averaging under §63.7522, you must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.

(c) If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2 or 11 through 13 to this subpart) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Tables 1 and 2 or 11 through 13 to this subpart).

(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to §63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in §63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in §63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in §63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25

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months, or 61 months, respectively, after April 1, 2013 or the initial startup of the new or reconstructed affected source, whichever is later.

(e) If you demonstrate compliance with the mercury, HCl, or TSM based on fuel analysis, you must conduct a monthly fuel analysis according to §63.7521 for each type of fuel burned that is subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart. You may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in §63.7540. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, you may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or you begin burning a new type of fuel, you must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level. If sampling is conducted on one day per month, samples should be no less than 14 days apart, but if multiple samples are taken per month, the 14-day restriction does not apply.

(f) You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to §63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests must include all applicable information required in §63.7550.

(g) For affected sources (as defined in §63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Tables 1, 2, or 11 through 13 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) and the schedule described in §63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(h) If your affected boiler or process heater is in the unit designed to burn light liquid subcategory and you combust ultra-low sulfur liquid fuel, you do not need to conduct further performance tests (stack tests or fuel analyses) if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 or 2 of this subpart providing you demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. If you intend to use a fuel other than ultra-low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, you must conduct new performance tests within 60 days of burning the new fuel type.

(i) If you operate a CO CEMS that meets the Performance Specifications outlined in §63.7525(a)(3) of this subpart to demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you are not required to conduct CO performance tests and are not subject to the oxygen concentration operating limit requirement specified in §63.7510(a).

[78 FR 7165, Jan. 31, 2013, as amended at 80 FR 72808, Nov. 20, 2015]

**# 098 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7520]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What performance tests and procedures must I use?**

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in §63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You

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must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1 and 2 or 11 through 13 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7166, Jan. 31, 2013]

**# 099 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7521]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What fuel analyses and procedures must I use?**

(a) For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. For gas 2 (other) fuels, you must conduct fuel analyses for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 13 to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section.

(b) You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section, if you are required to conduct fuel analyses as specified in §63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in §63.7510.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for

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collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) You must obtain composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or the methods listed in Table 6 to this subpart, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material. At a minimum, for demonstrating initial compliance by fuel analysis, you must obtain three composite samples. For monthly fuel analyses, at a minimum, you must obtain a single composite sample. For fuel analyses as part of a performance stack test, as specified in §63.7510(a), you must obtain a composite fuel sample during each performance test run.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

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- (7) You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.
- (e) You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart, for use in Equations 7, 8, and 9 of this subpart.
- (f) To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in §63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable, except as specified in paragraph (f)(1) through (4) of this section, or as an alternative where fuel specification analysis is not practical, you must measure mercury concentration in the exhaust gas when firing only the gaseous fuel to be demonstrated as an other gas 1 fuel in the boiler or process heater according to the procedures in Table 6 to this subpart.
- (1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for natural gas or refinery gas.
- (2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part, part 60, part 61, or part 65.
- (3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.
- (4) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gas streams directly derived from natural gas at natural gas production sites or natural gas plants.
- (g) You must develop a site-specific fuel analysis plan for other gas 1 fuels according to the following procedures and requirements in paragraphs (g)(1) and (2) of this section.
- (1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in §63.7510.
- (2) You must include the information contained in paragraphs (g)(2)(i) through (vi) of this section in your fuel analysis plan.
- (i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (f)(1) through (3) of this section anticipated to be burned in each boiler or process heater.
- (ii) For each anticipated fuel type, the identification of whether you or a fuel supplier will be conducting the fuel specification analysis.
- (iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.
- (iv) For each anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of mercury.
- (v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to this subpart shall be used until the requested alternative is approved.
- (vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart. When using a fuel supplier's fuel analysis, the owner

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or operator is not required to submit the information in §63.7521(g)(2)(iii).

(h) You must obtain a single fuel sample for each fuel type for fuel specification of gaseous fuels.

(i) You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to this subpart.

[78 FR 7167, Jan. 31, 2013, as amended at 80 FR 72808, Nov. 20, 2015]

**# 100 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7525]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What are my monitoring, installation, operation, and maintenance requirements?**

(a) If your boiler or process heater is subject to a CO emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must install, operate, and maintain an oxygen analyzer system, as defined in §63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen (or carbon dioxide (CO<sub>2</sub>)) according to the procedures in paragraphs (a)(1) through (6) of this section.

(1) Install the CO CEMS and oxygen (or CO<sub>2</sub>) analyzer by the compliance date specified in §63.7495. The CO and oxygen (or CO<sub>2</sub>) levels shall be monitored at the same location at the outlet of the boiler or process heater. An owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the CO emissions limit be determined using CO<sub>2</sub> as a diluent correction in place of oxygen at 3 percent. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO<sub>2</sub> correction percentage for the fuel type burned in the unit, and must also take into account that the 3 percent oxygen correction is to be done on a dry basis. The alternative test method request must account for any CO<sub>2</sub> being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

(2) To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B; part 75 of this chapter (if an CO<sub>2</sub> analyzer is used); the site-specific monitoring plan developed according to §63.7505(d); and the requirements in §63.7540(a)(8) and paragraph (a) of this section. Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, a site-specific monitoring plan developed according to §63.7505(d), and the requirements in §63.7540(a)(8) and paragraph (a) of this section must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart.

(i) You must conduct a performance evaluation of each CO CEMS according to the requirements in §63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B.

(ii) During each relative accuracy test run of the CO CEMS, you must collect emission data for CO concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4. The relative accuracy testing must be at representative operating conditions.

(iii) You must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.

(iv) Any CO CEMS that does not comply with §63.7525(a) cannot be used to meet any requirement in this subpart to demonstrate compliance with a CO emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(v) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(vi) When CO<sub>2</sub> is used to correct CO emissions and CO<sub>2</sub> is measured on a wet basis, correct for moisture as follows: Install, operate, maintain, and quality assure a continuous moisture monitoring system for measuring and recording the

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moisture content of the flue gases, in order to correct the measured hourly volumetric flow rates for moisture when calculating CO concentrations. The following continuous moisture monitoring systems are acceptable: A continuous moisture sensor; an oxygen analyzer (or analyzers) capable of measuring O<sub>2</sub> both on a wet basis and on a dry basis; or a stack temperature sensor and a moisture look-up table, i.e., a psychrometric chart (for saturated gas streams following wet scrubbers or other demonstrably saturated gas streams, only). The moisture monitoring system shall include as a component the automated data acquisition and handling system (DAHS) for recording and reporting both the raw data (e.g., hourly average wet-and dry basis O<sub>2</sub> values) and the hourly average values of the stack gas moisture content derived from those data. When a moisture look-up table is used, the moisture monitoring system shall be represented as a single component, the certified DAHS, in the monitoring plan for the unit or common stack.

(3) Complete a minimum of one cycle of CO and oxygen (or CO<sub>2</sub>) CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen (or CO<sub>2</sub>) data concurrently. Collect at least four CO and oxygen (or CO<sub>2</sub>) CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(4) Reduce the CO CEMS data as specified in §63.8(g)(2).

(5) Calculate one-hour arithmetic averages, corrected to 3 percent oxygen (or corrected to an CO<sub>2</sub> percentage determined to be equivalent to 3 percent oxygen) from each hour of CO CEMS data in parts per million CO concentration. The one-hour arithmetic averages required shall be used to calculate the 30-day or 10-day rolling average emissions. Use Equation 19-19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A-7 for calculating the average CO concentration from the hourly values.

(6) For purposes of collecting CO data, operate the CO CEMS as specified in §63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in §63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in §63.7535(d).

(7) Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to this subpart.

(b) - (c) Not applicable.

(d) If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (d)(1) through (5) of this section by the compliance date specified in §63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in §63.7535(b), and comply with the data calculation requirements specified in §63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in §63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in §63.7535(c).

(5) You must record the results of each inspection, calibration, and validation check.

(e) - (k) Not applicable

(l) For each unit for which you decide to demonstrate compliance with the mercury or HCl emissions limits in Tables 1 or 2 or 11 through 13 of this subpart by use of a CEMS for mercury or HCl, you must install, certify, maintain, and operate a



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CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (l)(1) through (8) of this section. For HCl, this option for an affected unit takes effect on the date a final performance specification for a HCl CEMS is published in the Federal Register or the date of approval of a site-specific monitoring plan.

- (1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.
- (2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in §63.7540(a)(14) for a mercury CEMS and §63.7540(a)(15) for a HCl CEMS.
- (3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (l)(3)(i) through (iii) of this section.
  - (i) No later than July 30, 2013.
  - (ii) No later 180 days after the date of initial startup.
  - (iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.
- (4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (l)(4)(i) and (ii) of this section.
  - (i) No later than July 29, 2016.
  - (ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.
- (5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A-7, but substituting the mercury or HCl concentration for the pollutant concentrations normally used in Method 19.
- (6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.
- (7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day and 10-day rolling average emissions.
- (8) You are allowed to substitute the use of the PM, mercury or HCl CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the PM, mercury or HCl emissions limit, and if you are using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, you are allowed to substitute the use of a sulfur dioxide (SO<sub>2</sub>) CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with HCl emissions limit.
  - (m) Not applicable.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7171, Jan. 31, 2013; 80 FR 72810, Nov. 20, 2015]

**# 101 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7530]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**SECTION C. Site Level Requirements****How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?**

(a) You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating limits, as applicable, according to §63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart. The requirement to conduct a fuel analysis is not applicable for units that burn a single type of fuel, as specified by §63.7510(a)(2). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to §63.7525.

(b) If you demonstrate compliance through performance stack testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in §63.7520, Table 7 to this subpart, and paragraph (b)(4) of this section, as applicable. You must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of this section, as applicable, and as specified in §63.7510(a)(2). (Note that §63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1) You must establish the maximum chlorine fuel input (Clinput) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the fuel analysis for hydrogen chloride, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (Ci).

(iii) You must establish a maximum chlorine input level using Equation 7 of this section. [Refer to the CFR for Equation 7]

Where:

Clinput = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

Ci = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine during the initial compliance test. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Qi) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG<sub>i</sub>).

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(iii) You must establish a maximum mercury input level using Equation 8 of this section. [Refer to the CFR for Equation 8]

Where:

Mercury<sub>input</sub> = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content during the initial compliance test. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSM<sub>input</sub>) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the fuel analysis for TSM, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of TSM, and the average TSM concentration of each fuel type burned (TSM<sub>i</sub>).

(iii) You must establish a maximum TSM input level using Equation 9 of this section. [Refer to the CFR for Equation 9]

Where:

TSM<sub>input</sub> = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSM<sub>i</sub> = Arithmetic average concentration of TSM in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of TSM during the initial compliance test. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(4) You must establish parameter operating limits according to paragraphs (b)(4)(i) through (ix) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(i) - (vii) Not Applicable (controls not needed to meet emission limits)

(viii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

(ix) Not applicable.

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(c) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to §63.7521 and follow the procedures in paragraphs (c)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test described in Equation 15 of this section. [See the CFR for Equation 15]

Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.

SD = Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

t = t distribution critical value for 90th percentile (t0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 16 of this section must not exceed the applicable emission limit for HCl. [See the CFR for Equation 16]

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 15 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 17 of this section must not exceed the applicable emission limit for mercury. [See the CFR for Equation 17]

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

Hgi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 15 of this section.

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$Q_i$  = Fraction of total heat input from fuel type,  $i$ , based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ . For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

$n$  = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(5) To demonstrate compliance with the applicable emission limit for TSM for solid or liquid fuels, the TSM emission rate that you calculate for your boiler or process heater from solid fuels using Equation 18 of this section must not exceed the applicable emission limit for TSM. [See the CFR for Equation 18]

Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

$TSM_{i90}$  = 90th percentile confidence level concentration of TSM in fuel,  $i$ , in units of pounds per million Btu as calculated according to Equation 15 of this section.

$Q_i$  = Fraction of total heat input from fuel type,  $i$ , based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ . For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

$n$  = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.

(d)[Reserved]

(e) You must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 to this subpart, and that the assessment is an accurate depiction of your facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e).

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in §63.7575, you must conduct an initial fuel specification analyses according to §63.7521(f) through (i) and according to the frequency listed in §63.7540(c) and maintain records of the results of the testing as outlined in §63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.

(h) If you own or operate a unit subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart, you must meet the work practice standard according to Table 3 of this subpart. During startup and shutdown, you must only follow the work practice standards according to items 5 and 6 of Table 3 of this subpart.

(i) Not applicable

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7174, Jan. 31, 2013; 80 FR 72811, Nov. 20, 2015]

**# 102 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7535]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****How do I monitor and collect data to demonstrate continuous compliance?**

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).

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(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your semi-annual report.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7179, Jan. 31, 2013; 80 FR 72812, Nov. 20, 2015]

**# 103 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7540]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?**

(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

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(Excerpt from Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance)

Item 8 - If you must meet the operating limits or work practice standards of emission limits using fuel analysis, you must demonstrate continuous compliance by:

- a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and
- b. Reduce the data to 12-month rolling averages; and
- c. Maintain the 12-month rolling average at or below the applicable emission limit for HCl or mercury or TSM in Tables 1 and 2 or 11 through 13 to this subpart.
- d. Calculate the HCl, mercury, and/or TSM emission rate from the boiler or process heater in units of lb/MMBtu using Equation 15 and Equations 17, 18, and/or 19 in §63.7530.

Item 9 - If you must meet the operating limits or work practice standards of oxygen content, you must demonstrate

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continuous compliance by:

- a. Continuously monitor the oxygen content using an oxygen analyzer system according to §63.7525(a). This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in §63.7525(a)(7).
- b. Reducing the data to 30-day rolling averages; and
- c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the CO performance test.

Item 10 -If you must meet the operating limits or work practice standards of boiler or process heater operating load, you must demonstrate continuous compliance by:

- a. Collecting operating load data or steam generation data every 15 minutes.
- b. Reducing the data to 30-day rolling averages; and
- c. Maintaining the 30-day rolling average operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test according to §63.7520(c).

[78 FR 7204, Jan. 31, 2013, as amended at 80 FR 72829, Nov. 20, 2015]

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(a)(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.

(2) As specified in §63.7555(d), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

(i) Equal to or lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Equal to or lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the HCl emission rate using Equation 16 of §63.7530 according to paragraphs (a)(3)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the HCl emission rate.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 16 of §63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn

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a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of §63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of §63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in §63.7510(a)(2)(i) through (iii).

(5) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 17 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 17 of §63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of §63.7530. If the results of recalculating the maximum mercury input using Equation 8 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). You are not required to conduct fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7) Not applicable

(8) To demonstrate compliance with the applicable alternative CO CEMS emission limit listed in Tables 1, 2, or 11 through 13 to this subpart, you must meet the requirements in paragraphs (a)(8)(i) through (iv) of this section.

(i) Continuously monitor CO according to §§63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Tables 1 or 2 or 11 through 13 to this subpart at all times the affected unit is subject to numeric emission limits.

(iii) Keep records of CO levels according to §63.7555(b).

(iv) You must record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with your site-specific monitoring plan.

(9) Not applicable

(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. You must conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior



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to the tune-up. This frequency does not apply to limited-use boilers and process heaters, as defined in §63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(11) If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of this section), you must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance.

(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in §63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(14) - (15) Not applicable.

(16) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to

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burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 9 of §63.7530. If the results of recalculating the maximum TSM input using Equation 9 of §63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). You are not required to conduct fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(17) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis for solid or liquid fuels, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 18 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 18 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(18) - (19) Not applicable

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 13 to this subpart that apply to you. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in §63.7550.

(c) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must follow the sampling frequency specified in paragraphs (c)(1) through (4) of this section and conduct this sampling according to the procedures in §63.7521(f) through (i).

(1) If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in §63.7575, you do not need to conduct further sampling.

(2) If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification as defined in §63.7575, you will conduct semi-annual sampling. If 6 consecutive semi-annual fuel analyses demonstrate 50 percent or less of the mercury specification, you do not need to conduct further sampling. If any semi-annual sample exceeds 75 percent of the mercury specification, you must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75 percent of the compliance level.

(3) If the initial mercury constituents are greater than 75 percent of the mercury specification as defined in §63.7575, you will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75 percent or less of the mercury specification, you may decrease the fuel analysis frequency to semi-annual for that fuel.

(4) If the initial sample exceeds the mercury specification as defined in §63.7575, each affected boiler or process heater combusting this fuel is not part of the unit designed to burn gas 1 subcategory and must be in compliance with the emission and operating limits for the appropriate subcategory. You may elect to conduct additional monthly sampling while complying with these emissions and operating limits to demonstrate that the fuel qualifies as another gas 1 fuel. If 12 consecutive monthly fuel analyses samples are at or below the mercury specification as defined in §63.7575, each affected boiler or process heater combusting the fuel can elect to switch back into the unit designed to burn gas 1 subcategory until the mercury specification is exceeded.

(d) For startup and shutdown, you must meet the work practice standards according to items 5 and 6 of Table 3 of this

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subpart.

[78 FR 7179, Jan. 31, 2013, as amended at 80 FR 72813, Nov. 20, 2015]

**# 104 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7545]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What notifications must I submit and when?**

- (a) You must submit to the Administrator all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
- (b) As specified in §63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013.
- (c) As specified in §63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.
- (d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.
- (e) If you are required to conduct an initial compliance demonstration as specified in §63.7530, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8) of this section, as applicable. If you are not required to conduct an initial compliance demonstration as specified in §63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8) of this section and must be submitted within 60 days of the compliance date specified at §63.7495(b).
- (1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under §241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.
- (2) Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:
- (i) Identification of whether you are complying with the PM emission limit or the alternative TSM emission limit.
- (ii) Identification of whether you are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBtu or ppm) emission limits,
- (iii) Identification of whether you are complying the arithmetic mean of all valid hours of data from the previous 30 operating days or of the previous 720 hours. This identification shall be specified separately for each operating parameter.
- (3) A summary of the maximum CO emission levels recorded during the performance test to show that you have met any applicable emission standard in Tables 1, 2, or 11 through 13 to this subpart, if you are not using a CO CEMS to demonstrate compliance.
- (4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.
- (5) Not applicable

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- (6) A signed certification that you have met all applicable emission limits and work practice standards.
- (7) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.
- (8) In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
- (i) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi)."
- (ii) "This facility has had an energy assessment performed according to §63.7530(e)."
- (iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."
- (f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in §63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.
- (1) Company name and address.
- (2) Identification of the affected unit.
- (3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.
- (4) Type of alternative fuel that you intend to use.
- (5) Dates when the alternative fuel use is expected to begin and end.
- (g) Not applicable
- (h) If you have switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:
- (1) The name of the owner or operator of the affected source, as defined in §63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.
- (2) The currently applicable subcategory under this subpart.
- (3) The date upon which the fuel switch or physical change occurred.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7183, Jan. 31, 2013; 80 FR 72814, Nov. 20, 2015]

**# 105 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What reports must I submit and when?**

- (a) You must submit each report in Table 9 to this subpart that applies to you.

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Table 9 --

1. You must submit a compliance report containing:

a. Information required in §63.7550(c)(1) through (5); and

b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards for periods of startup and shutdown in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and

c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in §63.7550(d); and

d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), or otherwise not operating, the report must contain the information in §63.7550(e)

You must submit the report according to the requirements in §63.7550(b).

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013; 80 FR 72830, Nov. 20, 2015]

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(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in §63.7495.

(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in §63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the

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permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of this section, (xiv) and (xvii) of this section, and paragraph (c)(5)(iv) of this section for limited-use boiler or process heater.

(2) If you are complying with the fuel analysis you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii), (vi), (x), (xi), (xiii), (xv), (xvii), (xviii) and paragraph (d) of this section.

(3) If you are complying with the applicable emissions limit with performance testing you must submit a compliance report with the information in (c)(5)(i) through (iii), (vi), (vii), (viii), (ix), (xi), (xii), (xv), (xvii), (xviii) and paragraph (d) of this section.

(4) If you are complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (iii), (v), (vi), (xi) through (xiii), (xv) through (xviii), and paragraph (e) of this section.

(5)(i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

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

(iv) The total operating time during the reporting period.

(v) If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with §63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 16 of §63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of §63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 17 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of §63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 18 of §63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

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- (ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of §63.7530 or the maximum mercury input operating limit using Equation 8 of §63.7530, or the maximum TSM input operating limit using Equation 9 of §63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.
- (x) A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§63.7521(f) and 63.7530(g).
- (xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.
- (xii) If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in §63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.
- (xiii) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with §63.7500(a)(3), including actions taken to correct the malfunction.
- (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
- (xv) Not applicable
- (xvi) For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values for CEMS (CO, HCl, SO<sub>2</sub>, and mercury), 10 day rolling average values for CO CEMS when the limit is expressed as a 10 day instead of 30 day rolling average, and the PM CPMS data.
- (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- (xviii) For each instance of startup or shutdown include the information required to be monitored, collected, or recorded according to the requirements of §63.7555(d).
- (d) For each deviation from an emission limit or operating limit in this subpart that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, or from the work practice standards for periods if startup and shutdown, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of this section.
- (1) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.
- (2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.
- (3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.
- (e) For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the

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compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of this section. This includes any deviations from your site-specific monitoring plan as required in §63.7505(d).

- (1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).
  - (2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
  - (3) The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).
  - (4) The date and time that each deviation started and stopped.
  - (5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
  - (6) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
  - (7) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
  - (8) A brief description of the source for which there was a deviation.
  - (9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.
- (f)-(g) [Reserved]
- (h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.
    - (1) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any fuel analyses, following the procedure specified in either paragraph (h)(1)(i) or (ii) of this section.
      - (i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>)). Performance test data must be submitted in a file format generated through use of the EPA's ERT or an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.
      - (ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.
    - (2) Within 60 days after the date of completing each CEMS performance evaluation (as defined in §63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (h)(2)(i) or (ii) of this section.
      - (i) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants



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that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

(3) You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

[78 FR 7183, Jan. 31, 2013, as amended at 80 FR 72814, Nov. 20, 2015]

**# 106 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7555]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What records must I keep?**

(a) You must keep records according to paragraphs (a)(1) and (2) of this section.

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

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).

(3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating.

(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.

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

(2) Not applicable

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

(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated

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averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each boiler or process heater subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (11) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to §241.3(b)(1) and (2) of this chapter, you must keep a record that documents how the secondary material meets each of the legitimacy criteria under §241.3(d)(1) of this chapter. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to §241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfy the definition of processing in §241.2 of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under §241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per §241.4 of this chapter, you must keep records documenting that the material is listed as a non-waste under §241.4(a) of this chapter. Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 16 of §63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 17 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(5) If, consistent with §63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 13 to this subpart, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(6) Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.

(7) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3), including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(8) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 18 of §63.7530, that were done to demonstrate

**SECTION C. Site Level Requirements**

compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(9) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(10) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(11) For each startup period, for units selecting paragraph (2) of the definition of "startup" in §63.7575 you must maintain records of the time that clean fuel combustion begins; the time when you start feeding fuels that are not clean fuels; the time when useful thermal energy is first supplied; and the time when the PM controls are engaged.

(12) If you choose to rely on paragraph (2) of the definition of "startup" in §63.7575, for each startup period, you must maintain records of the hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly average CMS data (e.g., CEMS, PM CPMS, COMS, ESP total secondary electric power input, scrubber pressure drop, scrubber liquid flow rate) collected during each startup period to confirm that the control devices are engaged. In addition, if compliance with the PM emission limit is demonstrated using a PM control device, you must maintain records as specified in paragraphs (d)(12)(i) through (iii) of this section.

(i) - (iii) Not applicable

(13) If you choose to use paragraph (2) of the definition of "startup" in §63.7575 and you find that you are unable to safely engage and operate your PM control(s) within 1 hour of first firing of non-clean fuels, you may choose to rely on paragraph (1) of definition of "startup" in §63.7575 or you may submit to the delegated permitting authority a request for a variance with the PM controls requirement, as described below.

(i) The request shall provide evidence of a documented manufacturer-identified safety issue.

(ii) Not applicable

(iii) In addition, the request shall contain documentation that:

(A) The unit is using clean fuels to the maximum extent possible to bring the unit and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel;

(B) The unit has explicitly followed the manufacturer's procedures to alleviate or prevent the identified safety issue; and

(C) Identifies with specificity the details of the manufacturer's statement of concern.

(iv) You must comply with all other work practice requirements, including but not limited to data collection, recordkeeping, and reporting requirements.

(e) - (f) Not applicable

(g) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by §63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6.

(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7185, Jan. 31, 2013; 80 FR 72816, Nov. 20, 2015]

**SECTION C. Site Level Requirements****# 107 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7560]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

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

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

(c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

**# 108 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7565]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What parts of the General Provisions apply to me?**

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

**# 109 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7575]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What definitions apply to this subpart?**

Refer to the CFR for the definitions pertaining to 40 CFR 63 Subpart DDDDD.

**# 110 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.982]**

**Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process Requirements.**

(a) General compliance requirements for storage vessels, process vents, transfer racks, and equipment leaks. An owner or operator who is referred to this subpart for controlling regulated material emissions from storage vessels, process vents, low and high throughput transfer racks, or equipment leaks by venting emissions through a closed vent system to a flare, nonflare control device or routing to a fuel gas system or process shall comply with the applicable requirements of paragraphs (a)(1) through (4) of this section.

(1) Storage vessels. The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(1), and (d) of this section.

(2) Process vents. The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(2), and (e) of this section.

(3) Transfer racks. (i) For low throughput transfer racks, the owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(1), and (d) of this section.

(ii) For high throughput transfer racks, the owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(2), and (d) of this section.

(4) Equipment leaks. The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(3), and (d) of this section.

(b) Closed vent system and flare. Owners or operators that vent emissions through a closed vent system to a flare shall meet the requirements in §63.983 for closed vent systems; §63.987 for flares; §63.997 (a), (b) and (c) for provisions regarding flare compliance assessments; the monitoring, recordkeeping, and reporting requirements referenced therein; and the applicable recordkeeping and reporting requirements of §§63.998 and 63.999. No other provisions of this subpart apply to emissions vented through a closed vent system to a flare.

**SECTION C. Site Level Requirements**

(c) -(e) Not applicable.

(f) Combined emissions. When emissions from different emission types (e.g., emissions from process vents, transfer racks, and/or storage vessels) are combined, an owner or operator shall comply with the requirements of either paragraph (f)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of emissions in the stream (e.g., the requirements of paragraph (a)(2) of this section for process vents, and the requirements of paragraph (a)(3) of this section for transfer racks); or

(2) Comply with the first set of requirements identified in paragraphs (f)(2)(i) through (iii) of this section which applies to any individual emission stream that is included in the combined stream. Compliance with paragraphs (f)(2)(i) through (iii) of this section constitutes compliance with all other emissions requirements for other emission streams.

(i) The requirements of §63.982(a)(2) for process vents, including applicable monitoring, recordkeeping, and reporting;

(ii) The requirements of §63.982(a)(3)(ii) for high throughput transfer racks, including applicable monitoring, recordkeeping, and reporting;

(iii) The requirements of §63.982(a)(1) or (a)(3)(i) for control of emissions from storage vessels or low throughput transfer racks, including applicable monitoring, recordkeeping, and reporting.

[64 FR 34866, June 29, 1999, as amended at 64 FR 63705, Nov. 22, 1999]

**# 111 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.983]**

**Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process**

**Closed vent systems.**

(a) Closed vent system equipment and operating requirements. Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) - (2) Not applicable.

(3) Bypass monitoring. Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the owner or operator shall comply with the provisions of either paragraphs (a)(3)(i) or (ii) of this section for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

(i) Properly install, maintain, and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in §63.998(d)(1)(ii)(A). The flow indicator shall be installed at the entrance to any bypass line.

(ii) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records shall be generated as specified in §63.998(d)(1)(ii)(B).

**# 112 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.984]**

**Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process**

**Fuel gas systems and processes to which storage vessel, transfer rack, or equipment leak regulated material emissions are routed.**

(a) Equipment and operating requirements for fuel gas systems and processes.

(1) Not applicable.

(2) The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process shall open to the atmosphere during

**SECTION C. Site Level Requirements**

loading. Pressure relief devices needed for safety purposes are not subject to this paragraph.

(b) Fuel gas system and process compliance assessment. (1) If emissions are routed to a fuel gas system, there is no requirement to conduct a performance test or design evaluation.

(2) If emissions are routed to a process, the regulated material in the emissions shall meet one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section. The owner or operator of storage vessels subject to this paragraph shall comply with the compliance demonstration requirements in paragraph (b)(3) of this section.

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

(ii) Transformed by chemical reaction into materials that are not regulated materials;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(3) To demonstrate compliance with paragraph (b)(2) of this section for a storage vessel, the owner or operator shall prepare a design evaluation (or engineering assessment) that demonstrates the extent to which one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section are being met.

(c) Statement of connection. For storage vessels and transfer racks, the owner or operator shall submit the statement of connection reports for fuel gas systems specified in §63.999(b)(1)(ii), as appropriate.

**VIII. COMPLIANCE CERTIFICATION.**

The permittee shall submit within thirty days of 12/31/2005 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.**

No compliance milestones exist.

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

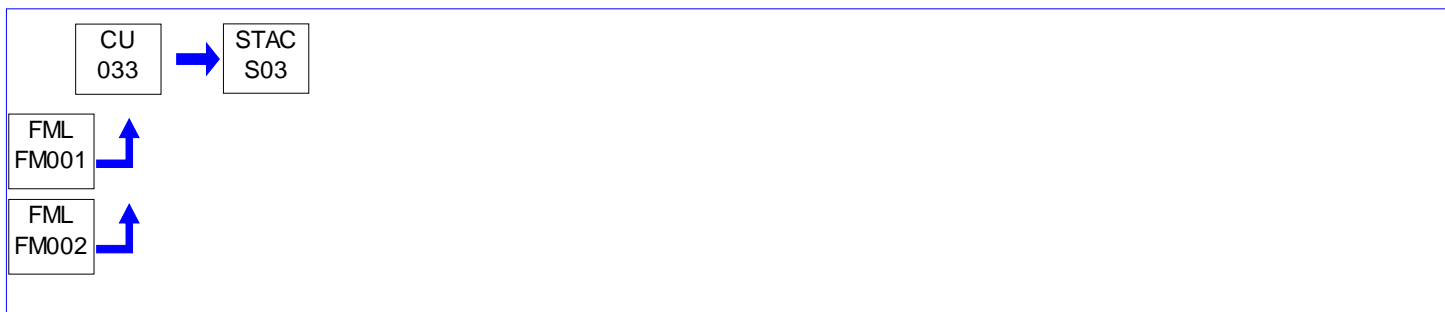
**SECTION D. Source Level Requirements**

Source ID: 033

Source Name: BOILER 3

Source Capacity/Throughput:	99.000 MMBTU/HR	
	99.000 MCF/HR	Natural Gas
	76.200 MCF/HR	Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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.

(2) The rate determined by the following formula:

$$A = 3.6E^{-0.56}$$

where

A = Allowable emissions in pounds per million BTUs of heat input,

and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

**# 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.**

The NO<sub>x</sub> emissions from this source shall not exceed 0.41 pounds per million Btu heat input (based on a 30 day rolling average) or 120 tons per year (based on a 12 month rolling total).

[Authority for this condition is also derived from 25 Pa Code 129.92.]

[This limit is streamlined from the permit based on the RACT 2 emission limit of 0.325 lb/mmbtu]

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

Emissions of NO<sub>x</sub> from this source shall not exceed 0.325 lb NO<sub>x</sub> / mmbtu heat input.

[Authority for this condition is derived from 25 Pa Code 129.99]

**SECTION D. Source Level Requirements****Fuel Restriction(s).****# 005 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- (a) This source shall only burn natural gas or refinery fuel gas.
- (b) The sulfur content of the refinery fuel gas shall not exceed 2.0% at any time.

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

This source shall be stack tested every five (5) years to demonstrate compliance with the NOx limits. This testing is to be performed in accordance with 40 CFR 60, Appendix A, Test Method 7, 7A, 7C, 7D, 7E, or other method approved by the Department.

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

The permittee shall maintain records via electronic file, hardcopy, or other method approved by the Department, to indicate at a minimum, the following information about the annual tune-up:

- 1) The date of the tuning procedures.
- 2) The name of the service company if applicable and technicians.
- 3) The final operation rate and load.
- 4) The final CO and NOx emission rates in pounds per million Btu.
- 5) The final excess oxygen rate.

(Annual emission rates shall be confirmed using a portable gas analyzer in accordance with the manufacturer's specifications or other acceptable methods.)

**V. REPORTING REQUIREMENTS.****# 008 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- a) Prior to NOx emission testing, the permittee shall comply with the pretest procedures, protocols, and notification requirements contained in the most recent version of the Department's "Source Testing Manual".
- b) Within 60 days after completion of any stack test, two copies of the complete test report, including all operating conditions, shall be submitted to the Department for approval.

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

- a) This source shall be fired using Low Excess Air.
- b) This source shall be operated and maintained according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.
- c) This source shall undergo an annual tune-up that shall include, but not be limited to, the following:
  - Inspection, adjustment, cleaning, or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.



**SECTION D. Source Level Requirements**

- Inspection of the flame pattern or characteristics and adjust as necessary to minimize total emissions of NO<sub>x</sub>, and to the extent practicable minimize emissions of CO.

- Inspection of the air-to-fuel ratio control system and adjust as necessary to ensure proper calibration and operation as specified by the manufacturer.

**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. \*\*\***

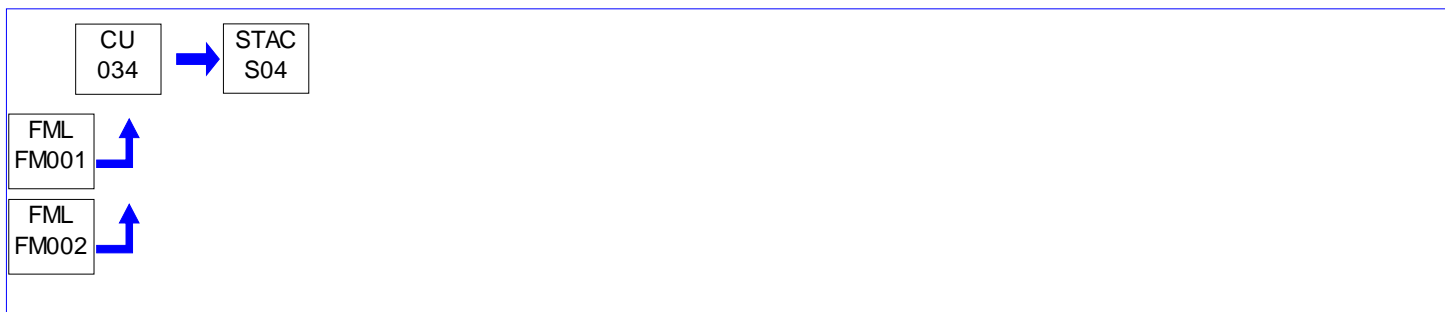
**SECTION D. Source Level Requirements**

Source ID: 034

Source Name: BOILER 4

Source Capacity/Throughput:	99.000	MMBTU/HR	
	99.000	MCF/HR	Natural Gas
	76.200	MCF/HR	Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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.

(2) The rate determined by the following formula:

$$A = 3.6E^{(-0.56)}$$

where

A = Allowable emissions in pounds per million BTUs of heat input,

and

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

**# 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.**

The NO<sub>x</sub> emissions from this source shall not exceed 0.41 pounds per million Btu heat input (based on a 30 day rolling average) or 120 tons per year (based on a 12 month rolling total).

[Authority for this condition is also derived from 25 Pa Code 129.92.]

[This limit is streamlined from the permit based on the RACT 2 emission limit of 0.325 lb/mmbtu]

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

Emissions of NO<sub>x</sub> from this source shall not exceed 0.325 lb NO<sub>x</sub> / mmbtu heat input.

[Authority for this condition is derived from 25 Pa Code 129.99]

**SECTION D. Source Level Requirements****Fuel Restriction(s).****# 005 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- (a) This source shall only burn refinery fuel gas or natural gas.
- (b) The sulfur content of the refinery fuel gas shall not exceed 2.0% at any time.

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

This source shall be stack tested every five (5) years to demonstrate compliance with the NO<sub>x</sub> limits. This testing is to be performed in accordance with 40 CFR 60, Appendix A, Test Method 7, 7A, 7C, 7D, 7E, or other method approved by the Department.

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

The permittee shall maintain records via electronic file, hardcopy, or other method approved by the Department, to indicate at a minimum, the following information about the annual tune-up:

- 1) The date of the tuning procedures.
- 2) The name of the service company if applicable and technicians.
- 3) The final operation rate and load.
- 4) The final CO and NO<sub>x</sub> emission rates in pounds per million Btu.
- 5) The final excess oxygen rate.

(Annual emission rates shall be confirmed using a portable gas analyzer in accordance with the manufacturer's specifications or other acceptable methods.)

**V. REPORTING REQUIREMENTS.****# 008 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- a) Prior to NO<sub>x</sub> emission testing, the permittee shall comply with the pretest procedures, protocols, and notification requirements contained in the most recent version of the Department's "Source Testing Manual".
- b) Within 60 days after completion of any stack test, two copies of the complete test report, including all operating conditions, shall be submitted to the Department for approval.

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

- a) This source shall be fired using Low Excess Air.
- b) This source shall be operated and maintained according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.
- c) This source shall undergo an annual tune-up that shall include, but not be limited to, the following:
  - Inspection, adjustment, cleaning, or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

**SECTION D. Source Level Requirements**

- Inspection of the flame pattern or characteristics and adjust as necessary to minimize total emissions of NO<sub>x</sub>, and to the extent practicable minimize emissions of CO.

- Inspection of the air-to-fuel ratio control system and adjust as necessary to ensure proper calibration and operation as specified by the manufacturer.

**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).

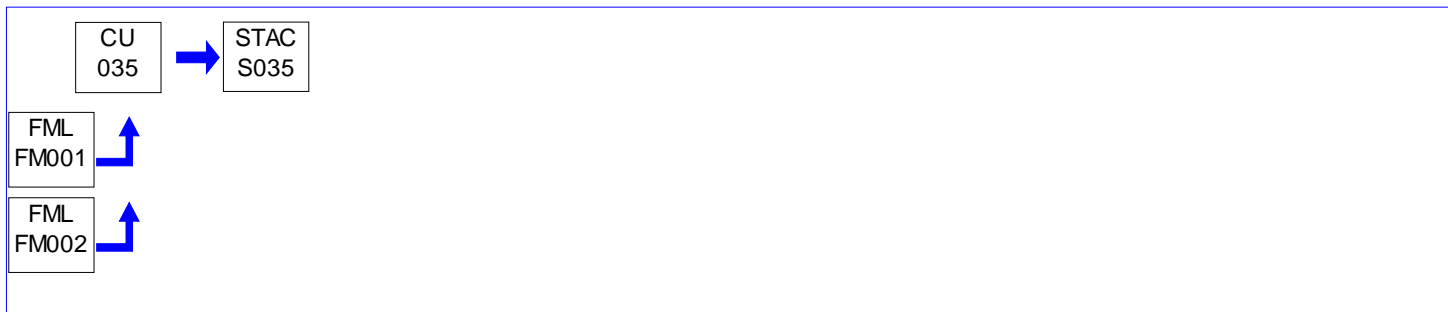
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 035

Source Name: BOILER #6

Source Capacity/Throughput:	172.540	MMBTU/HR	
	164.324	MCF/HR	Natural Gas
	92.510	MCF/HR	Refinery Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-004J]

The boiler emissions shall not exceed the following:

1. VOC: 0.69 #/hr
2. VOC: 3.02 tpy based on a 12-month rolling total
3. NOx: 6.21 #/hr
4. NOx: 27.21 tpy based on a 12-month rolling total
5. CO: 6.9 #/hr
6. CO: 30.23 tpy based on a 12-month rolling total

**# 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:

(1) Natural gas and distillate oil:

- (i) Not applicable
- (ii) High heat release rate 86 ng/J or 0.20 #/mmbtu
- (b) Not applicable
- (c) Not applicable
- (d) Not applicable

**SECTION D. Source Level Requirements**

(e) Not applicable

(f) Not applicable

(g) Not applicable

(h) For purposes of paragraph (i) of this section, the NOX 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

(k) Not applicable

(l) On and after the date on which the initial performance test is completed or is required to be completed under 60.8, whichever date is first, no owner or operator of an affected facility that commenced construction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> (expressed as NO<sub>2</sub>) in excess of the following limits:

(1) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal, oil, or natural gas (or any combination of the three), alone or with any other fuels. The affected facility is not subject to this limit if it is subject to and in compliance with a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas (or any combination of the three); or

(2) Not applicable

(3) Not applicable

[In accordance with 40 CFR 60.46b(a), the NO<sub>x</sub> emission standards under §60.44b apply at all times]

**Fuel Restriction(s).**

**# 003 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

[Plan Approval 42-004J]

The source shall only combust natural gas or refinery gas.

**# 004 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

This source shall not combust fuel gas with H<sub>2</sub>S concentration exceeding 60 ppmv for five consecutive days.

[Alternative Monitoring Plan approved by USEPA on February 2, 2017]

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.102a]**

**SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007**

**Emissions limitations.**

[60.102a(g)(1)(ii)]

The owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H<sub>2</sub>S in excess of 162 ppmv determined on a 3-hour rolling average basis and H<sub>2</sub>S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-004J]

(a) A stack test shall be conducted within 180 days after construction and commencement of operation of the source. The stack test shall be conducted for NO<sub>x</sub>, VOC, and CO and shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at the maximum or normal rated capacity as stated on the application.

1. [25 Pa. Code § 139.53(a)(3)] 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. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
2. [25 Pa. Code § 139.53(a)(3)] 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 appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
3. [25 Pa. Code § 139.53(a)(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 shall be sent to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office indicating the completion date of the on-site testing.
4. [40 CFR Part 60.8(a), 40 CFR Part 61.13(f) and 40 CFR Part 63.7(g)] A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program. For those tests being conducted pursuant to 40 CFR Part 61, a complete test report shall be submitted within 31 days after completion of the test.
5. [25 Pa. Code Section 139.53(b)] 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. [25 Pa. Code § 139.3] 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. [25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3)] 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. If internet submittal cannot be accomplished, one electronic copy of the submittal shall be sent to both PSIMS Administration in Central Office and to Regional Office AQ Program Manager. Electronic copies shall be sent at the following e-mail addresses:

CENTRAL OFFICE:  
RA-EPstacktesting@pa.gov

**SECTION D. Source Level Requirements**

NORTHWEST REGIONAL OFFICE:  
RA-EPNWstacktesting@pa.gov

9. 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.

10. 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.

[Plan Approval 42-004J]

(b) After incorporation of this plan approval into the facility operating permit and within twelve (12) to eighteen (18) months prior to the expiration of the facility operating permit, a stack test for NO<sub>x</sub>, VOC, and CO shall be performed in accordance with the provisions in part (a). The stack test shall be performed while the aforementioned source is operating at the maximum or normal rated capacity as stated on the application.

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**When must I conduct subsequent performance tests or fuel analyses, or tune-ups?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7515 (d) and (g)

**III. MONITORING REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

(a) ARG will monitor Source 035 fuel H<sub>2</sub>S concentration at least once per day with a hand-held monitor on any day that LO-CAT gas is combusted by the source.

(b) The sampling location shall be at a point downstream of the LO-CAT and natural gas feed tie-in point.

(c) ARG monitoring requirements include:

- i. Purchase of two similar hand-held H<sub>2</sub>S monitors.
- ii. Daily two-point (0 and 80 ppm) H<sub>2</sub>S monitor calibration.



**SECTION D. Source Level Requirements**

- iii. Weekly four-point (0, 40, 60 and 80 ppm) H<sub>2</sub>S monitor calibration.
- iv. Annual manufacturer certification for both monitors.
- v. Initial Relative Accuracy Test Audit (RATA) to be performed every three years thereafter by a third-party contractor.

(d) ARG will not direct sour gas to the #6 Boiler.

[Alternative Monitoring Plan approved by USEPA on February 2, 2017]

[40 CFR 60.104a and 60.107a were streamlined from this permit based on the above condition.]

**# 009 [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) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO<sub>x</sub> standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Not applicable

(2) Not applicable

(c) Not applicable

(d) Not applicable

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

(1) Not applicable

(2) Not applicable

(3) Not applicable

(f) Not applicable

(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) Not applicable

(2) Monitor steam generating unit operating conditions and predict NO<sub>x</sub> emission rates as specified in a plan submitted pursuant to §60.49b(c).

(h) Not applicable

(i) Not applicable

(j) Not applicable

(k) Not applicable

(l) Not applicable

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

ARG will keep a record of the results of the #6 Boiler fuel feed H<sub>2</sub>S concentration on file for five years and make them available to the Department upon request.

[This is consistent with previously incorporated AMPs.]

[40 CFR 60.108a was streamlined from this permit based on the above condition.]

**# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7555]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What records must I keep?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7555 (a)(1), and (h)

**# 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7560]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****In what form and how long must I keep my records?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7560 (a), (b), and (c)

**V. REPORTING REQUIREMENTS.****# 013 [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) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);
- (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) Not applicable

(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. An affected facility burning coke oven gas alone or in combination

**SECTION D. Source Level Requirements**

with other gaseous fuels or distillate oil shall submit this plan to the Administrator for approval within 360 days of the initial startup of the affected facility or by November 30, 2009, whichever date comes later. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

- (1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO<sub>x</sub> emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas O<sub>2</sub> level);
  - (2) Include the data and information that the owner or operator used to identify the relationship between NO<sub>x</sub> 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) 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 and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
  - (2) As an alternative to meeting the requirements of paragraph (d)(1) of this section, the owner or operator of an affected facility that is subject to a federally enforceable permit restricting fuel use to a single fuel such that the facility is not required to continuously monitor any emissions (excluding opacity) or parameters indicative of emissions may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
- (e) Not applicable
- (f) Not applicable
- (g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO<sub>x</sub> standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:
- (1) Calendar date;
  - (2) The average hourly NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;
  - (3) The 30-day average NO<sub>x</sub> emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
  - (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
  - (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
  - (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

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- (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- (8) Not applicable
- (9) Not applicable
- (10) Not applicable
- (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 NO<sub>x</sub> standard of §60.44b, and that:
- (i) Combusts natural gas, distillate oil, gasified coal, or residual oil with a nitrogen content of 0.3 weight percent or less; or
  - (ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO<sub>x</sub> emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).
- (3) Not applicable
- (4) Not applicable
- (i) Not applicable
- (j) Not applicable
- (k) Not applicable
- (l) Not applicable
- (m) Not applicable
- (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) Not applicable
- (q) Not applicable
- (r) Not applicable
- (s) Not applicable
- (t) Not applicable
- (u) Not applicable
- (v) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) 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

**SECTION D. Source Level 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.

(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.

(x) Not applicable

(y) Not applicable

**# 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7545]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What notifications must I submit and when?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7545 (a), (c), (e)(1,6,7 & 8), (f), and (h)

**# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What reports must I submit and when?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7550 (a), (b), (c)(1), (c)(5)(i-iv), (c)(5)(xiv), (c)(5)(xvii), and (h)(3).

**VI. WORK PRACTICE REQUIREMENTS.**

**# 016 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

ARG will shut off RFG feed whenever H2S concentration is found to be >162 ppmv and RFG feed to #6 Boiler will not be restored until after ARG has confirmed the H2S concentration to be <162 ppmv.

[This condition combined with the restriction on burning RFG with H2S > 60 for more than five consecutive days prevents exceedance of the 500 lb SO2/day threshold.]

[Alternative Monitoring Plan approved by USEPA on February 2, 2017]

[40 CFR 60.103a was streamlined from this permit based on the above condition.]

**# 017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7500]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7500 (a)(1), (a)(3), (b), (e), and (f)

**# 018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7505]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**SECTION D. Source Level Requirements****What are my general requirements for complying with this subpart?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7505 (a)

**# 019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7510]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What are my initial compliance requirements and by what date must I conduct them?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7510 (g)

**# 020 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7530]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7530 (f) and (g)

**# 021 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7540]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7540 (a)(12-13) and (b)

**VII. ADDITIONAL REQUIREMENTS.****# 022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.100a]**

**SUBPART Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007**

**Applicability, designation of affected facility, and reconstruction. Source: 73 FR 35867, June 24, 2008, unless otherwise noted.**

(a) The provisions of this subpart apply to the following affected facilities in petroleum refineries: fluid catalytic cracking units (FCCU), fluid coking units (FCU), delayed coking units, fuel gas combustion devices (including process heaters), flares and sulfur recovery plants. The sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Except for flares and delayed coking units, the provisions of this subpart apply only to affected facilities under paragraph (a) of this section which either commence construction, modification or reconstruction after May 14, 2007, or elect to comply with the provisions of this subpart in lieu of complying with the provisions in subpart J of this part. For flares, the provisions of this subpart apply only to flares which commence construction, modification or reconstruction after June 24, 2008. For the purposes of this subpart, a modification to a flare commences when a project that includes any of the activities in paragraphs (c)(1) or (2) of this section is commenced. For delayed coking units, the provisions of this subpart apply to

**SECTION D. Source Level Requirements**

delayed coking units that commence construction, reconstruction or modification on the earliest of the following dates

(1) Not applicable

(2) Not applicable

(3) Not applicable

(c) For all affected facilities other than flares, the provisions in §60.14 regarding modification apply. As provided in §60.14(f), the special provisions set forth under this subpart shall supersede the provisions in §60.14 with respect to flares. For the purposes of this subpart, a modification to a flare occurs as provided in paragraphs (c)(1) or (2) of this section.

(1) Not applicable

(2) Not applicable

(d) For purposes of this subpart, under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the relevant applicability date specified in paragraph (b) of this section.

[73 FR 35867, June 24, 2008, as amended at 77 FR 56464, Sep. 12, 2012; 80 FR 75230, Dec. 1, 2015]

**# 023 [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) Not applicable

(c) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NOX standards under this subpart and the SO2 standards under subpart J or subpart Ja of this part, as applicable.

(d) Not applicable

(e) Not applicable

(f) Not applicable

(g) Not applicable

(h) Not applicable

(i) Affected facilities (i.e., heat recovery steam generators) that are associated with stationary combustion turbines and that meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other affected facilities (i.e. heat recovery steam generators with duct burners) that are capable of combusting more than 29 MW (100 MMBtu/h) heat input of fossil fuel. If the affected facility (i.e. heat recovery steam generator) is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

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(k) Not applicable

(l) Not applicable

(m) Not applicable

**# 024 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7495 (a) and (d)

**# 025 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7575]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What definitions apply to this subpart?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7575

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

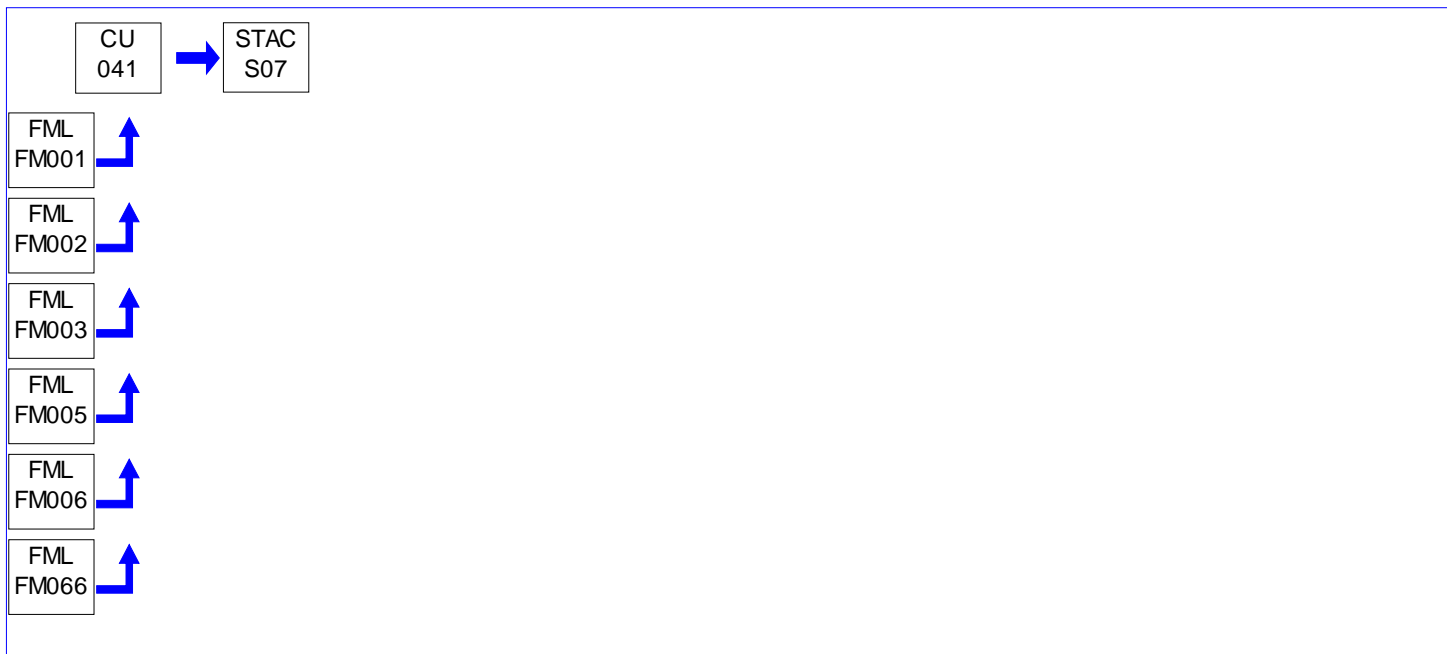


**SECTION D. Source Level Requirements**

Source ID: 041

Source Name: CRUDE UNIT HEATER

Source Capacity/Throughput:	33.400	MMBTU/HR	
	250.000	Gal/HR	#4 Oil
	33.400	MCF/HR	Natural Gas
	25.700	MCF/HR	Refinery Gas
	250.000	Gal/HR	#6 Oil
	250.000	Gal/HR	#5 OIL & WAXES

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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 §127.12b]****Plan approval terms and conditions.**

The following limits apply when this source is combusting any fuel:

Sulfur Oxides	9.54 lbs/hour	41.8 tons/year
Nitrogen Oxides	12.25 lbs/hour	53.6 tons/year
Carbon Monoxide	1.11 lbs/hour	4.9 tons/year
PM-10 (Filterable)	0.44 lbs/hour	1.9 tons/year
VOCs	0.09 lbs/hour	0.4 tons/year

[The NOx lbs/hr emission limit established in this condition is also authorized pursuant to 25 Pa Code 129.99 for RACT 2]

**SECTION D. Source Level Requirements****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7500]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7500 (a), (b), and (f)

**Fuel Restriction(s).****# 004 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

- a) This source shall only combust refinery fuel gas, #4, #5, #6 fuel oil or waxes, and natural gas as fuels.
- b) Any residual oil combusted by this source shall have a sulfur content no higher than 0.27% by weight.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]**

**Subpart J - Standards of Performance for Petroleum Refineries  
Standards for sulfur oxides.**

(a) No owner or operator subject to the provisions of this subpart shall:

- (1) Burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H<sub>2</sub>S) in excess of 230 mg/dscm (0.10 gr/dscf).

**Throughput Restriction(s).****# 006 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

[Plan Approval 42-004G]

This facility shall not refine crude oil at an average daily rate greater than 11,000 barrels as calculated from a twelve month rolling average. For the purposes of this plan approval/operating permit, refinement of crude oil shall be considered to have begun once the oil has entered the Crude Unit Heater (Source ID 041).

**II. TESTING REQUIREMENTS.****# 007 [25 Pa. Code §127.511]**

**Monitoring and related recordkeeping and reporting requirements.**

Each type of fuel oil combusted by this source shall be tested for sulfur content at least once every seven days during periods where fuel oil is being combusted. A record of these fuel analysis shall be maintained for a minimum of five (5) years.

**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.****# 008 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

- (a) The permittee shall maintain records of the types of fuels combusted during each hour this source is in operation.
- (b) The permittee shall maintain records via electronic file, hardcopy, or other method approved by the Department, to indicate at a minimum, the following information about the annual tune-up:

**SECTION D. Source Level Requirements**

- 1) The date of the tuning procedures.
- 2) The name of the service company if applicable and technicians.
- 3) The final operation rate and load.
- 4) The final CO and NOx emission rates in pounds per million Btu.
- 5) The final excess oxygen rate.

(Annual emission rates shall be confirmed using a portable gas analyzer in accordance with the manufacturer's specifications or other acceptable methods.)

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

[Plan Approval 42-004G]

The following records shall be maintained on site via electronic file, hardcopy, or other method approved by the Department for a period of five years and shall be made available to the Department upon request:

- A. The daily throughput of crude oil entering the Crude Unit Heater (Source ID 041) shall be recorded in a log.
- B. Each calendar month's average daily crude throughput shall be recorded in a log.

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

[Plan Approval 42-004G]

Each year of operation ARG shall submit the average daily crude throughput of 12 months, beginning with January 1st and ending with December 31st, to the Department no later than March 1st.

**VI. WORK PRACTICE REQUIREMENTS.****# 011 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- a) This source shall be fired using Low Excess Air.
- b) This source shall be operated and maintained according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.
- c) This source shall undergo an annual tune-up that shall include, but not be limited to, the following:
  - Inspection, adjustment, cleaning, or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
  - Inspection of the flame pattern or characteristics and adjust as necessary to minimize total emissions of NOx, and to the extent practicable minimize emissions of CO.
  - Inspection of the air-to-fuel ratio control system and adjust as necessary to ensure proper calibration and operation as specified by the manufacturer.

**VII. ADDITIONAL REQUIREMENTS.****# 012 [25 Pa. Code §127.203a.]****Applicability determination.**

[Plan Approval 42-004G]

(a) The Department will conduct an applicability determination during its review of a plan approval application for the construction of a new major facility or modification at an existing major facility under the following provisions:

- (1) As part of the plan approval application, the owner or operator of the facility shall calculate whether a significant emissions increase and a significant net emissions increase will occur as a result of a physical change or change in the method of operation. The owner or operator of the facility shall use the procedures in subparagraph (i) to calculate the

**SECTION D. Source Level Requirements**

emissions increase in a regulated NSR pollutant due to the project, and the procedures in subparagraph (ii) to calculate the net emissions increase in a regulated NSR pollutant. A project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases--a significant emissions increase and a significant net emissions increase. If the project causes a significant emissions increase, the project is a major modification if it also results in a significant net emissions increase.

(i) The emissions increase in a regulated NSR pollutant due to the project will be the sum of the following:

(A) For existing emissions units, an emissions increase of a regulated NSR pollutant is the difference between the projected actual emissions and the baseline actual emissions for each unit, as determined in paragraphs (4) and (5). Exclude, in calculating an increase in emissions that results from the particular project, that portion of the unit's emissions following completion of the project that existing units could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that is also unrelated to the particular project, including all increased utilization due to product demand and growth as specified in paragraph (5)(i)(C).

(B) For new emissions units, the emissions increase of a regulated NSR pollutant will be the potential to emit from each new emissions unit.

(ii) The net emissions increase for a regulated NSR pollutant emitted by a major facility will be the amount by which the sum of the following exceeds zero:

(A) The increase in emissions from a physical change or change in the method of operation at a major facility as calculated under subparagraph (i).

(B) Other increases and decreases in actual emissions at the major facility that are contemporaneous with the project and are otherwise creditable.

(I) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date 5 years before construction on the project commences and the date that construction on the project is completed.

(II) Baseline actual emissions for calculating increases are determined as specified under paragraph (4), except that paragraph (4)(i)(D) does not apply.

(2) As part of the plan approval application for a proposed de minimis emission increase, the owner or operator of the facility shall use subparagraphs (i) and (ii) to calculate the net emissions increase. For a proposed de minimis increase in which the net emissions increase calculated using subparagraphs (i) and (ii) meets or exceeds the emissions rate that is significant, only the emissions offset requirements in § 127.205(3) (relating to special permit requirements) apply to the net emissions increase.

(i) The net emissions increase is the sum of the proposed de minimis increase due to the project and the previously determined increases in potential emissions or actual emissions and decreases in actual emissions that are contemporaneous with the project.

(ii) An increase or decrease is contemporaneous if it occurred within 10 years prior to the date of the Department's receipt of a complete plan approval application.

(3) An increase or a decrease is creditable for applicability determination purposes if it meets the following conditions:

(i) The Department has not relied on it in issuing a permit for the facility under this subchapter, for which the permit is in effect when the increase in emissions from the project occurs.

(ii) The increase is creditable to the extent that the new level of emissions exceeds the old level of emissions.

(iii) An actual emissions decrease is creditable if the following conditions are met:

**SECTION D. Source Level Requirements**

(A) The ERC provisions in § 127.207(1) and (3)--(7) (relating to creditable emissions decrease or ERC generation and creation) have been complied with, and the decrease in emissions is Federally enforceable by the time construction begins on the project. The plan approval for the project will contain a provision specifying that the emissions decrease is Federally enforceable on or before the construction date.

(B) The emissions decrease is such that when compared with the proposed emissions increase there is no significant change in the character of the emissions, including seasonal emission patterns, stack heights or hourly emission rates.

(C) The emissions decrease represents approximately the same qualitative significance for public health and welfare as attributed to the proposed increase. This requirement is satisfied if the emissions rate that is significant is not exceeded.

(D) An emissions decrease or an ERC generated at the facility may be used as a creditable decrease in a net emissions increase. The use of the ERCs in applicability determinations for netting purposes is limited to the period specified in paragraphs (1)(ii) and (2). A portion of an ERC generated at another facility, acquired by trade and incorporated in a plan approval for use at the facility, is not creditable as an emissions decrease.

(iv) An actual or potential emissions increase that results from a physical change in a facility occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. A replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

(4) The following procedures apply in determining the baseline actual emissions for an existing emissions unit:

(i) For an existing emissions unit, baseline actual emissions are the average rate, in TPY, at which the unit emitted the regulated NSR pollutant during a consecutive 24-month period selected by the owner or the operator within the 5-year period immediately prior to the date a complete plan approval application is received by the Department. The Department may approve the use of a different consecutive 24-month period within the last 10 years upon a written determination that it is more representative of normal source operation.

(A) The average rate includes fugitive emissions to the extent quantifiable and emissions associated with startups and shutdowns; the average rate does not include excess emissions including emissions associated with upsets or malfunctions.

(B) The average rate is adjusted downward to exclude noncompliant emissions that occurred while the source was operating above an emissions limitation that was legally enforceable during the consecutive 24-month period.

(C) The average rate is adjusted downward to exclude emissions that would have exceeded an emissions limitation with which the facility must currently comply, had the facility been required to comply with the limitations during the consecutive 24-month period. The baseline actual emissions is based on the emissions limitation in this subchapter or a permit limitation or other more stringent emissions limitation required by the Clean Air Act or the act, whichever is more restrictive.

(D) For a regulated NSR pollutant, when a project involves multiple emissions units, the same consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. The same consecutive 24-month period shall be used for all regulated NSR pollutants unless the owner or operator demonstrates, in writing, to the Department that a different consecutive 24-month period is more appropriate and the Department approves, in writing, the different consecutive 24-month period for a regulated NSR pollutant or pollutants.

(E) The average rate is not based on a consecutive 24-month period for which there is inadequate information for:

(I) Determining annual emissions, in TPY.

(II) Adjusting this amount if required by clause (B) or (C).

(F) The average rate is not greater than the emissions previously submitted to the Department in the required emissions statement and for which applicable emission fees have been paid.

(ii) For a new emissions unit, the baseline actual emissions equal zero and thereafter, for all other purposes, shall equal

**SECTION D. Source Level Requirements**

the unit's potential to emit.

(iii) The baseline actual emissions is determined by measurement, calculations or estimations in the order of the following preferences:

(A) Monitoring systems including:

(I) CEMS data interpolated to annual emissions using flow meters and conversion factors.

(II) PEMS approved, in writing, by the Department.

(B) Other measurements and calculations including:

(I) Stack measurement which generates emission estimates using stack test derived emission factors and throughput.

(II) A mass balance equation which includes the following elements:

(-a-) The amount of materials used per unit of time, determined through measurements of parameters representing process conditions.

(-b-) The emissions per unit mass of material used, determined using mass balance techniques.

(-c-) The annual emissions, calculated using emissions per unit mass of material and amount of material used per unit of time.

(C) Emission factors, including generally recognized and accepted emission factors by EPA, such as USEPA "Compilation of Air Pollutant Emission Factors" (AP-42) or other emission factors accepted by the Department.

(D) Other calculations and measurements as approved by the Department.

(5) Projected actual emissions is the maximum annual rate, in TPY, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit of that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major facility. The following procedures apply in determining the projected actual emissions of a regulated NSR pollutant for an emissions unit, before beginning actual construction on the project:

(i) The owner or operator of the major facility shall:

(A) Consider all relevant information, including, but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, and the company's filings with the State or Federal regulatory authorities.

(B) Include fugitive emissions to the extent quantifiable, and emissions associated with startups and shutdowns.

(C) Exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following completion of the project that existing units could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that is also unrelated to the particular project, including any increased utilization due to product demand growth.

(ii) In lieu of using the method set out in subparagraph (i), the owner or operator of the major facility may elect to use the emissions unit's potential to emit, in TPY.

(iii) If the projected actual emissions for a regulated NSR pollutant are in excess of the baseline actual emissions, the following apply:

**SECTION D. Source Level Requirements**

- (A) The projected actual emissions for the regulated NSR pollutant must be incorporated into the required plan approval or the operating permit as an emission limit.
- (B) The owner or operator shall monitor the emissions of the regulated NSR pollutant for which a limit is established in clause (A) and calculate and maintain a record of emissions, in TPY on a calendar year basis, for 5 years following resumption of regular operations after the change, or for 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at the emissions unit.
- (C) The owner or operator shall record sufficient information to identify for all emission units in the approved project their total actual annual emissions and their actual annual emissions increase due to the project.
- (D) The owner or operator shall submit a report to the Department, within 60 days after the end of each calendar year, which contains the emissions data required by clauses (B) and (C). This report must also contain a demonstration of how these emissions were determined if the determination was not by direct measurement with a Department-certified CEMS system.
- (b) An owner or operator of a major facility with a PAL for a regulated NSR pollutant shall comply with the requirements under § 127.218 (relating to PALs).

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.100]****Subpart J - Standards of Performance for Petroleum Refineries****Applicability, designation of affected facility, and reconstruction.**

- (a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants with a design capacity for sulfur feed of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.
- (b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under paragraph (a) of this section other than a flare as defined in §60.101a which commences construction, reconstruction, or modification after June 11, 1973, and on or before May 14, 2007, or any fuel gas combustion device under paragraph (a) of this section that meets the definition of a flare as defined in §60.101a which commences construction, reconstruction, or modification after June 11, 1973, and on or before June 24, 2008, or any Claus sulfur recovery plant under paragraph (a) of this section which commences construction, reconstruction, or modification after October 4, 1976, and on or before May 14, 2007, is subject to the requirements of this subpart except as provided under paragraphs (c) and (d) of this section.
- (c) - (d) [Do not apply]
- (e) For purposes of this subpart, under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following January 17, 1984. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

**# 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****When do I have to comply with this subpart?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7495 (b), (d), (h), and (i)

**SECTION D. Source Level Requirements****# 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7505]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What are my general requirements for complying with this subpart?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7505 (a), (c), (d), and (e)

**# 016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7510]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What are my initial compliance requirements and by what date must I conduct them?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7510 (a), (b), (c), (d), (e), and (k)

**# 017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****When must I conduct subsequent performance tests or fuel analyses, or tune-ups?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7515 (a) - (i)

**# 018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7520]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What performance tests and procedures must I use?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7520 (a) - (f)

**# 019 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7521]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What fuel analyses and procedures must I use?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7521 (a), (b), (c), (e), (f), (g), (h), and (i)

**# 020 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7525]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What are my monitoring, installation, operation, and maintenance requirements?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7525 (a), (d), and (l)



**SECTION D. Source Level Requirements****# 021 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7530]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7530 (a), (b), (c), (e), (f), (g), and (h)

**# 022 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7535]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7535 (a) - (d)

**# 023 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7540]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7540 (a) - (d)

**# 024 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7545]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What notifications must I submit and when?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7545 (a), (b), (d), (e), (h)

**# 025 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What reports must I submit and when?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7550 (a), (b), (c), (d), (e), (h), and (i)

**# 026 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7555]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What records must I keep?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7555 (a), (b), (c), (d), (g), and (h)

**SECTION D. Source Level Requirements****# 027 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7560]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****In what form and how long must I keep my records?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7560 (a), (b), and (c)

**# 028 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7565]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What parts of the General Provisions apply to me?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7565

**# 029 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7575]****Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.****What definitions apply to this subpart?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7575

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

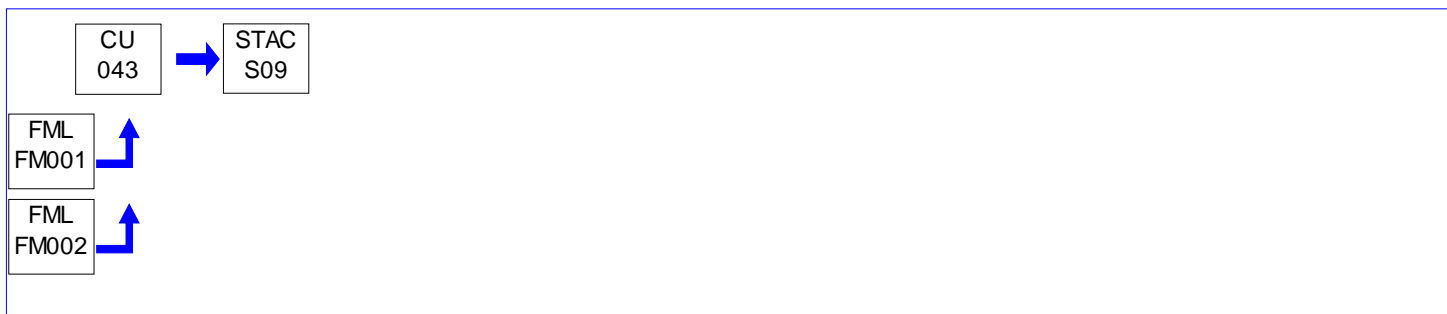
**SECTION D. Source Level Requirements**

Source ID: 043

Source Name: PLATFORMER HEATER

Source Capacity/Throughput:	40.000	MMBTU/HR	
	30.800	MCF/HR	Refinery Gas
	40.000	MCF/HR	Natural Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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 §127.441]****Operating permit terms and conditions.**

Emissions of NO<sub>x</sub> from this source shall not exceed 0.25 lb NO<sub>x</sub> / mmbtu heat input.

[Authority for this condition is derived from 25 Pa Code 129.99]

**Fuel Restriction(s).****# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) This source shall use only refinery fuel gas and/or natural gas as a fuel source.

(b) The sulfur content of the refinery fuel gas shall not exceed 2.0% at any time.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

a) Within twelve (12) to twenty-four (24) months prior to the expiration of the facility's operating permit (reoccurring), the permittee shall perform stack testing of Source 043 for NOx. Testing load conditions shall be representative to within 10% of maximum load design capacity or to within 10% of the maximum achievable operating load. Stack testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

b) 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 to the following e-mail addresses:

**CENTRAL OFFICE:**

RA-EPstacktesting@pa.gov

**NORTHWEST REGIONAL OFFICE:**

RA-EPNWstacktesting@pa.gov

c) At least 90 days prior to performing a stack test, a protocol shall be submitted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. Submit the protocol via the instructions in b). The protocol shall contain, at a minimum, location of sampling ports, planned production rates, and any other information applicable to the stack testing. Performing a stack test prior to Department approval of the protocol may invalidate the results.

d) At least 2 weeks prior to the test, the Department shall be informed, in writing, of the date and time of the test.

e) Within 60 days after completion of the test, the complete test report, including, but not limited to, production rates during testing, calculation methods and results, and any other applicable testing information that will allow for a complete review of the test and results, shall be submitted to the Department for approval. Submit the report via the instructions in b).

f) If, at any time, the Department has reason to believe that the air contaminant emissions from the source 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.

**# 006 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The sulfur content of the refinery fuel gas shall be tested using an approved ASTM method at the intervals listed herein. If the ASTM method currently being used is changed or modified to a different method, ARG shall notify the Department of the change in writing, 30 days prior to its use for Department approval.

**SECTION D. Source Level Requirements**

-Testing shall be performed on a monthly basis.

-If the sulfur content of the refinery gas exceeds 1.0% at any time, the testing interval will become weekly for a period of four weeks.

-After four weeks of weekly testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

-If at any time the sulfur content of the refinery gas exceeds 1.5%, the testing interval will become daily for a period of 30 days.

-After 30 days of daily testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

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

The permittee shall maintain records via electronic file, hardcopy, or other method approved by the Department, to indicate at a minimum, the following information about the annual tune-up:

- 1) The date of the tuning procedures.
- 2) The name of the service company if applicable and technicians.
- 3) The final operation rate and load.
- 4) The final CO and NOx emission rates in pounds per million Btu.
- 5) The final excess oxygen rate.

(Annual emission rates shall be confirmed using a portable gas analyzer in accordance with the manufacturer's specifications or other acceptable methods.)

**# 008 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of all sulfur content testing performed on the refinery fuel gas used by this source. These records shall be retained for at least five (5) years and shall be made available to the Department 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.****# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- a) This source shall be fired using Low Excess Air.
- b) This source shall be operated and maintained according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.
- c) This source shall undergo an annual tune-up that shall include, but not be limited to, the following:
  - Inspection, adjustment, cleaning, or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

**SECTION D. Source Level Requirements**

- Inspection of the flame pattern or characteristics and adjust as necessary to minimize total emissions of NO<sub>x</sub>, and to the extent practicable minimize emissions of CO.

- Inspection of the air-to-fuel ratio control system and adjust as necessary to ensure proper calibration and operation as specified by the manufacturer.

**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. \*\*\***

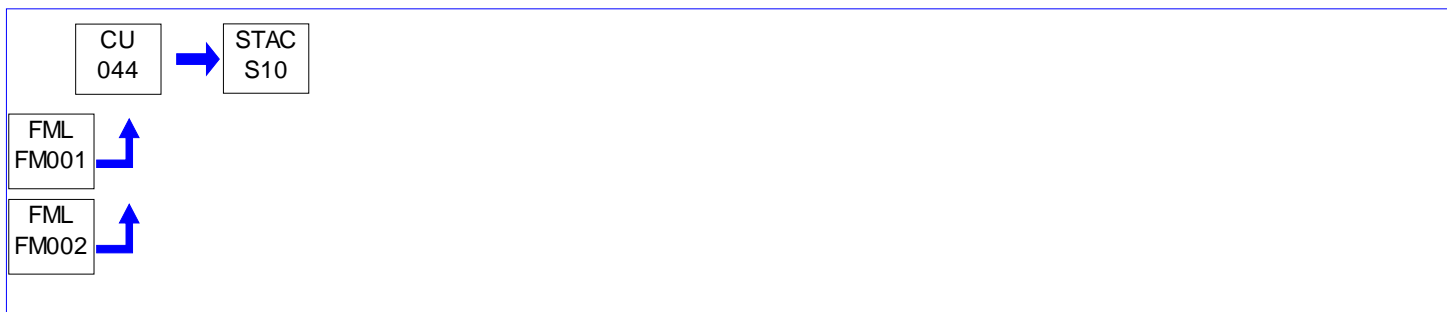
**SECTION D. Source Level Requirements**

Source ID: 044

Source Name: NMP EXTRACTION HEATER

Source Capacity/Throughput:	14.300	MMBTU/HR	
	11.000	MCF/HR	Refinery Gas
	14.300	MCF/HR	Natural Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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.

**Fuel Restriction(s).****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

a) This source shall use only refinery fuel gas and/or natural gas as a fuel source.

b) The sulfur content of the refinery fuel gas shall not exceed 2.0% at any time.

**II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The sulfur content of the refinery fuel gas shall be tested using an approved ASTM method at the intervals listed herein. If the ASTM method currently being used is changed or modified to a different method, ARG shall notify the Department of the change in writing, 30 days prior to its use for Department approval.

-Testing shall be performed on a monthly basis.

-If the sulfur content of the refinery gas exceeds 1.0% at any time, the testing interval will become weekly for a period of four weeks.

-After four weeks of weekly testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

**SECTION D. Source Level Requirements**

-If at any time the sulfur content of the refinery gas exceeds 1.5%, the testing interval will become daily for a period of 30 days.

-After 30 days of daily testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

**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.**

**# 005 [25 Pa. Code §127.511]**

**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of all sulfur content testing performed on the refinery fuel gas used by this source. These records shall be retained for at least five (5) years and shall be made available to the Department 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 §127.441]**

**Operating permit terms and conditions.**

This source shall be operated according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.

**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: 045

Source Name: NMP RAFFINATE HEATER

Source Capacity/Throughput:	8.800	MMBTU/HR	
	8.800	MCF/HR	Natural Gas
	6.800	MCF/HR	Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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 §127.12b]****Plan approval terms and conditions.**

a) The following limits apply when this source is burning Refinery Gas or Natural Gas:

Sulfur Oxides	0.18 lbs/hour	0.80 tons/year
Nitrogen Oxides	1.17 lbs/hour	5.1 tons/year
Carbon Monoxide	0.29 lbs/hour	1.3 tons/year
PM-10 (filterable)	0.02 lbs/hour	0.10 tons/year
VOCs	0.02 lbs/hour	0.1 tons/year

**Fuel Restriction(s).****# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

This source shall operate using only refinery fuel gas or natural gas as a fuel.

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]****Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

(a) No owner or operator subject to the provisions of this subpart shall:

(1) Burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H<sub>2</sub>S) in excess of 230 mg/dscm (0.10 gr/dscf).

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

[Plan Approval 42-004F]

This source shall be maintained and operated in according to the manufacturer's specifications and in accordance with good air pollution control practices.

[ This condition shall satisfy the presumptive RACT emission limitation for this source and replace the condition inadvertently included in Plan Approval 42-004D]

**VII. ADDITIONAL REQUIREMENTS.****# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.100]****Subpart J - Standards of Performance for Petroleum Refineries****Applicability, designation of affected facility, and reconstruction.**

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants with a design capacity for sulfur feed of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under paragraph (a) of this section other than a flare as defined in §60.101a which commences construction, reconstruction, or modification after June 11, 1973, and on or before May 14, 2007, or any fuel gas combustion device under paragraph (a) of this section that meets the definition of a flare as defined in §60.101a which commences construction, reconstruction, or modification after June 11, 1973, and on or before June 24, 2008, or any Claus sulfur recovery plant under paragraph (a) of this section which commences construction, reconstruction, or modification after October 4, 1976, and on or before May 14, 2007, is subject to the requirements of this subpart except as provided under paragraphs (c) and (d) of this section.

(c) - (d) [Do not apply]

(e) For purposes of this subpart, under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost

**SECTION D. Source Level Requirements**

of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following January 17, 1984. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

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

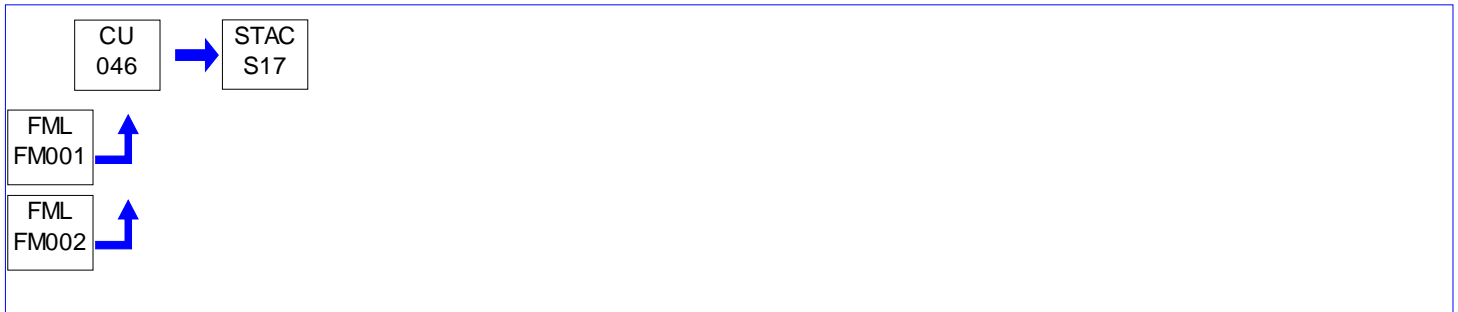
**SECTION D. Source Level Requirements**

Source ID: 046

Source Name: UNIFINER HEATER

Source Capacity/Throughput:	14.000	MMBTU/HR	
	10.800	MCF/HR	Refinery Gas
	14.000	MCF/HR	Natural Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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.

**Fuel Restriction(s).****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

a) This source shall use only refinery fuel gas and/or natural gas as a fuel source.

b) The sulfur content of the refinery fuel gas shall not exceed 2.0% at any time.

**II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The sulfur content of the refinery fuel gas shall be tested using an approved ASTM method at the intervals listed herein. If the ASTM method currently being used is changed or modified to a different method, ARG shall notify the Department of the change in writing, 30 days prior to its use for Department approval.

-Testing shall be performed on a monthly basis.

-If the sulfur content of the refinery gas exceeds 1.0% at any time, the testing interval will become weekly for a period of four weeks.

-After four weeks of weekly testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

**SECTION D. Source Level Requirements**

-If at any time the sulfur content of the refinery gas exceeds 1.5%, the testing interval will become daily for a period of 30 days.

-After 30 days of daily testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

**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.**

**# 005 [25 Pa. Code §127.511]**

**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of all sulfur content testing performed on the refinery fuel gas used by this source. These records shall be retained for at least five (5) years and shall be made available to the Department 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 §127.441]**

**Operating permit terms and conditions.**

This source shall be operated according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.

**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: 047

Source Name: ROSE UNIT HEATER

Source Capacity/Throughput:	3.000	MMBTU/HR	
	3.000	MCF/HR	Natural Gas
	2.300	MCF/HR	Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

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

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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.

**Fuel Restriction(s).****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

a) This source shall use only refinery fuel gas and natural gas as a fuel source.

b) The sulfur content of the refinery fuel gas shall not exceed 2.0% at any time.

**II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The sulfur content of the refinery fuel gas shall be tested using an approved ASTM method at the intervals listed herein. If the ASTM method currently being used is changed or modified to a different method, ARG shall notify the Department of the change in writing, 30 days prior to its use for Department approval.

-Testing shall be performed on a monthly basis.

-If the sulfur content of the refinery gas exceeds 1.0% at any time, the testing interval will become weekly for a period of four weeks.

-After four weeks of weekly testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

**SECTION D. Source Level Requirements**

-If at any time the sulfur content of the refinery gas exceeds 1.5%, the testing interval will become daily for a period of 30 days.

-After 30 days of daily testing, if the sulfur content of the refinery gas has been demonstrated to be less than or equal to 1.0%, the testing interval will be reduced to monthly.

**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.**

**# 005 [25 Pa. Code §127.511]**

**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of all sulfur content testing performed on the refinery fuel gas used by this source. These records shall be retained for at least five (5) years and shall be made available to the Department 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 §127.441]**

**Operating permit terms and conditions.**

This source shall be operated according to the manufacturer's specifications and in a manner consistent with good air pollution control practices.

**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: 049

Source Name: ISOMER UNIT HEATER

Source Capacity/Throughput: 0.834 MMBTU/HR

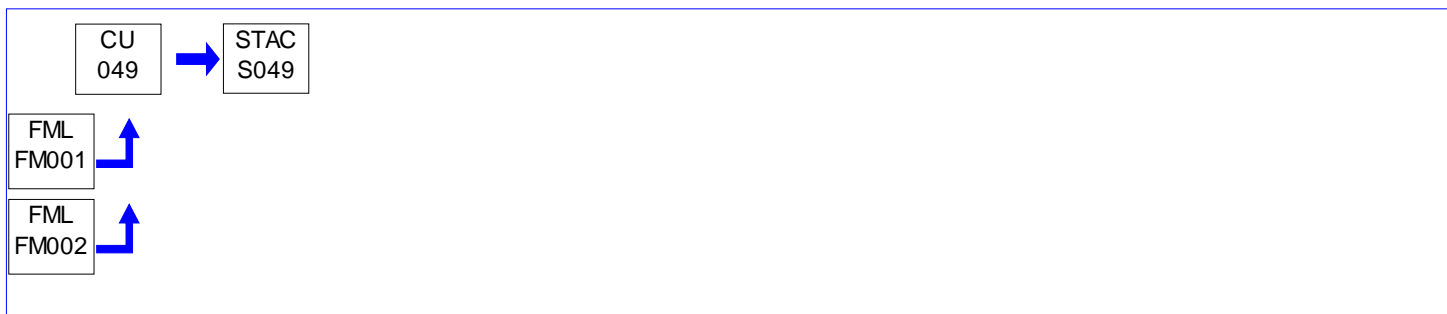
834.000 CF/HR

Natural Gas

642.000 CF/HR

Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A

**I. RESTRICTIONS.****Fuel Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

This source shall operate using only refinery fuel gas and/or natural gas as a fuel.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]****Subpart J - Standards of Performance for Petroleum Refineries  
Standards for sulfur oxides.**

(a) No owner or operator subject to the provisions of this subpart shall:

(1) Burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H<sub>2</sub>S) in excess of 230 mg/dscm (0.10 gr/dscf).

**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).



**SECTION D. Source Level 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) 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. \*\*\***

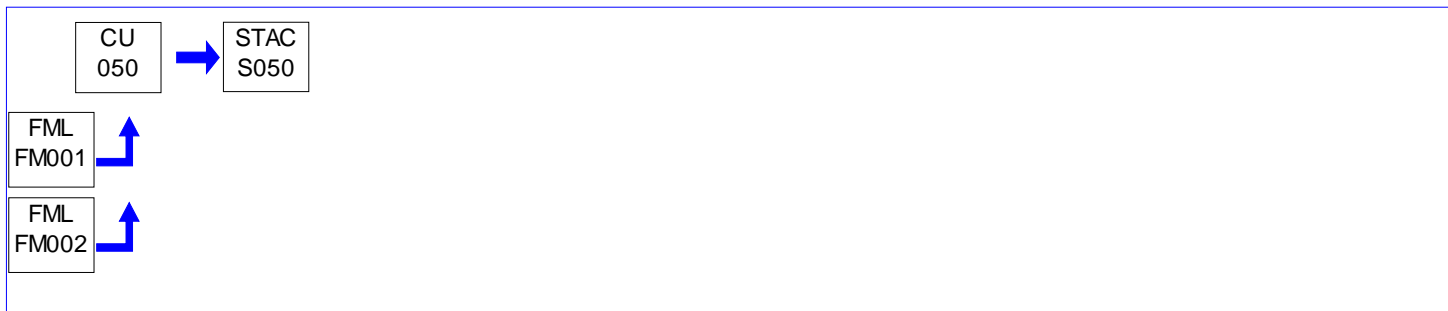
**SECTION D. Source Level Requirements**

Source ID: 050

Source Name: H-501 HYDROTREATER HEATER

Source Capacity/Throughput:	7.590 MCF/HR	Natural Gas
	5.840 MCF/HR	Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A  
HYDROTREATER HEATERS

**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. \*\*\***

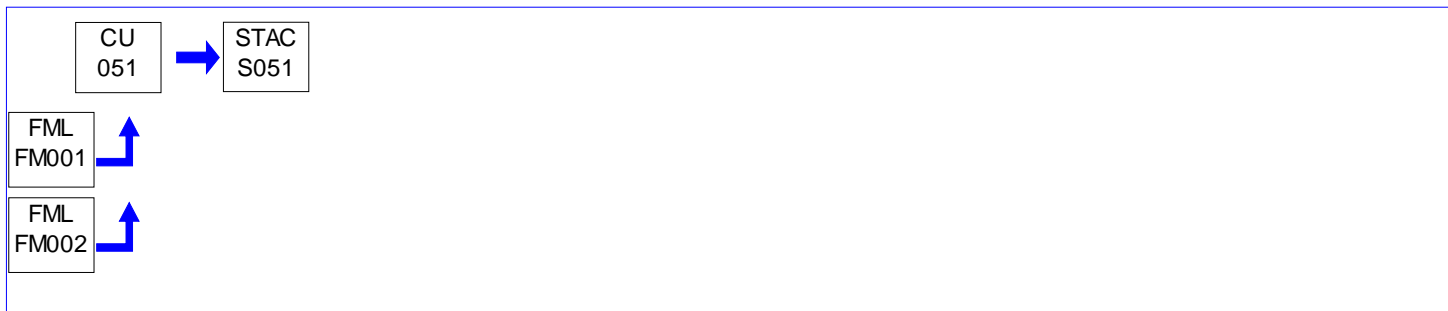
**SECTION D. Source Level Requirements**

Source ID: 051

Source Name: H-510 HYDROTREATER STRIPPER HEATER

Source Capacity/Throughput:	9.600 MCF/HR	Natural Gas
	7.400 MCF/HR	Refinery Gas

Conditions for this source occur in the following groups: BOILER MACT GROUP A  
HYDROTREATER HEATERS

**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).

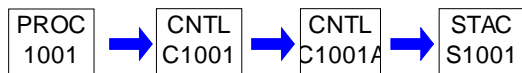
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 1001

Source Name: HYDROTREATER UNIT

Source Capacity/Throughput: 187.500 BBL/HR DIESEL / LUBE OILS

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) This source is subject to 25 Pa Code Sections 123.1, 123.31, and 123.41 for fugitive, odor, and visible emissions, respectively.

(b) No person may permit the emission into the outdoor atmosphere of particulate matter in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

**Throughput Restriction(s).****# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The maximum capacity of the hydrotreater is 4,200 barrels of diesel fuel per day, calculated as a 12-month rolling average.

**II. TESTING REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

a) Within twelve (12) to twenty-four (24) months prior to the expiration of the facility's operating permit (reoccurring), the permittee shall perform stack testing of the Lo-Cat Desulfurization Unit exhaust vent (Source 1001) for VOC. Testing load conditions shall be representative to within 10% of maximum load design capacity or to within 10% of the maximum achievable operating load. Stack testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

b) 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 to the following e-mail addresses:

CENTRAL OFFICE:

RA-EPstacktesting@pa.gov

NORTHWEST REGIONAL OFFICE:

**SECTION D. Source Level Requirements**

RA-EPNWstacktesting@pa.gov

- c) At least 90 days prior to performing a stack test, a protocol shall be submitted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. Submit the protocol via the instructions in b). The protocol shall contain, at a minimum, location of sampling ports, planned production rates, and any other information applicable to the stack testing. Performing a stack test prior to Department approval of the protocol may invalidate the results.
- d) At least 2 weeks prior to the test, the Department shall be informed, in writing, of the date and time of the test.
- e) Within 60 days after completion of the test, the complete test report, including, but not limited to, production rates during testing, calculation methods and results, and any other applicable testing information that will allow for a complete review of the test and results, shall be submitted to the Department for approval. Submit the report via the instructions in b).
- f) If, at any time, the Department has reason to believe that the air contaminant emissions from the source 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.

**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.**

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

(b) The permittee shall maintain a record of the following from the operational inspections:

1. The performance of an operational inspection

[Additional authority for this condition is based on 129.99 for RACT 2]

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

ARG shall maintain a record of the date and time:

- (a) The hydrotreater is operating
- (b) The LO-CAT unit is operating.
- (c) The hydrotreater is shut down
- (d) The LO-CAT unit is shut down

The records shall be kept for a period of five years and made available to the Department upon request.

[Additional authority for this condition is based on 129.99 for RACT 2]

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

The permittee shall record the throughput of diesel fuel processed by the hydrotreater on a daily basis. The records shall be kept for a period of five years and made available to the Department upon request.

**SECTION D. Source Level Requirements**

[Additional authority for this condition is based on 129.99 for RACT 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).

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

- (a) The permittee shall perform a daily operational inspection of the source for any day the source is in operation.
- (b) The permittee shall maintain and operate the source in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

[Additional authority for this condition is based on 129.99 for RACT 2]

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

ARG shall not direct any refinery gas (RFG) from the LO-CAT absorber to any combustion sources which are subject to NSPS requirement unless done in accordance with the terms and conditions of an Alternative Monitoring Plan approved by US EPA under the provisions of 40 CFR 60.13(i).

**# 009 [25 Pa. Code §129.58]****Petroleum refineries--fugitive sources**

- (a) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.
- (b) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.
- (c) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.
- (d) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.
- (e) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.
- (f) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.
- (g) The owner or operator of a petroleum refinery may submit an alternative plan for the control of leaks from petroleum refinery equipment to the Department. If the Department finds that the alternative plan will achieve an emission reduction which is equivalent to or greater than the reduction which can be achieved under this section and that the alternative plan is as enforceable as this section, then the Department will allow the implementation of this alternative plan.
- (h) Not applicable because the facility submitted an alternative plan (to conduct LDAR under 40 CFR 60 Subparts GGG and VV) as allowed in part (g) that is included in their Title V OP.

**SECTION D. Source Level Requirements****# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Standards.**

(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of 60.482-1 to 60.482-10 as soon as practicable, but no later than 180 days after initial startup.

(b) An owner or operator may elect to comply with the requirements of 60.483-1 and 60.483-2.

(c) An owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of 60.484.

(d) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of 60.485 except as provided in 60.593.

(e) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of 60.486 and 60.487.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.593]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Exceptions.**

(a) Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.

(b)(1) Compressors in hydrogen service are exempt from the requirements of 60.592 if an owner or operator demonstrates that a compressor is in hydrogen service.

(2) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 (incorporated by reference as specified in 60.17) shall be used.

(3)(i) An owner or operator may use engineering judgment rather than procedures in paragraph (b)(2) of this section to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures in paragraph (b)(2) shall be used to resolve the disagreement.

(ii) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures in paragraph (b)(2).

(c) Any existing reciprocating compressor that becomes an affected facility under provisions of 60.14 or 60.15 is exempt from 60.482 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 60.482 (a), (b), (c), (d), (e), and (h).

(d) An owner or operator may use the following provision in addition to 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150C as determined by ASTM Method D-86 (incorporated by reference as specified in 60.18).

(e) Pumps in light liquid service and valves in gas/vapor and light liquid service within a process unit that is located in the Alaskan North Slope are exempt from the requirements of 60.482-2 and 60.482-7.

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 012 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) Any information required to be submitted as part of this plan approval should be submitted to the attention of Chief, New Source Review Section, Air Quality Control, Northwest Regional Office, 230 Chestnut Street, Meadville, PA 16335.

(b) Pursuant to 40 CFR §60.4, the permittee shall submit copies of all requests, reports, applications, submittals, and other communications to both EPA and the appropriate Regional Office of the Department. The EPA copies shall be forwarded to:

Air Enforcement Branch, Mail Code 3AP12  
US EPA, Region III  
1650 Arch Street  
Philadelphia PA 19103-2029

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.590]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Applicability and designation of affected facility.**

(a)(1) The provisions of this subpart apply to affected facilities in petroleum refineries.

(2) A compressor is an affected facility.

(3) The group of all the equipment (defined in 60.591) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 4, 1983, is subject to the requirements of this subpart.

(c) Addition or replacement of equipment (defined in 60.591) for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d) Facilities subject to subpart VV or subpart KKK of 40 CFR part 60 are excluded from this subpart.

**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.591]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries****Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the act, in subpart A of part 60, or in subpart VV of part 60, and the following terms shall have the specific meanings given them.

Alaskan North Slope means the approximately 69,000 square mile area extending from the Brooks Range to the Arctic Ocean.

Equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service. For the purposes of recordkeeping and reporting only, compressors are considered equipment.

In hydrogen service means that a compressor contains a process fluid that meets the conditions specified in 60.593(b).

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in 60.593(c).

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Petroleum refinery means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through the distillation of petroleum, or through the redistillation, cracking, or reforming of unfinished petroleum derivatives.

Process unit means components assembled to produce intermediate or final products from petroleum, unfinished



**SECTION D. Source Level Requirements**

petroleum derivatives, or other intermediates; a process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

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

**SECTION D. Source Level Requirements**

Source ID: 150

Source Name: PLATFORMER REFORMER REACTOR VESSEL

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SUBPART UUU

**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.**

# 001 [25 Pa. Code §127.511]

**Monitoring and related recordkeeping and reporting requirements.**

Excess emissions from this source are to be controlled by the refinery flare (FL301).

**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. \*\*\***

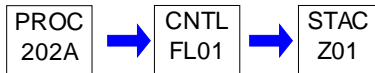
**SECTION D. Source Level Requirements**

Source ID: 202A

Source Name: PRE-KB LARGE SUBPART CC GRP 1 TKS (&gt;4% HAP) CONTROL W FLARE

Source Capacity/Throughput: 1,250.000 BBL/HR

Conditions for this source occur in the following groups: PA 42-004B (TANKS)



This source occurs in alternate operation SUBPART CC GROUP 2 STORAGE

**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: 206

Source Name: EQUIPMENT LEAKS OF VOC IN PETROLEUM REFINERIES

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.****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.592]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries Standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 60.592(a)-(e)

[Compliance with this streamlined condition while monitoring state regulated sources assures compliance with the requirements of 25 Pa. Code 129.58.]

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.593]****Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries Exceptions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 60.593(a)-(d)

[Compliance with this streamlined condition while monitoring state regulated sources assures compliance with the requirements of 25 Pa. Code 129.58.]

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.648]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Equipment leak standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.648(a)-(j)

[Compliance with this streamlined condition assures compliance with 25 Pa. Code 129.58.]

**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.****# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level

**SECTION D. Source Level Requirements**

Requirements, Additional Requirements, for condition]:

40 CFR 63.655(d)-(i)

**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 60.590]**

**Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries**

**Applicability and designation of affected facility.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 60.590(a)-(d)

[Compliance with this streamlined condition while monitoring state regulated sources assures compliance with the requirements of 25 Pa. Code 129.58.]

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]**

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries**

**Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a)-(s)

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.654]**

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries**

**Heat exchange systems.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.654(a)-(g)

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.658]**

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries**

**Fenceline monitoring provisions**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

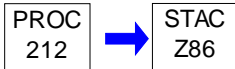
40 CFR 63.658 (a) - (k)

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

**SECTION D. Source Level Requirements**

Source ID: 212 Source Name: PRE-KB LARGE IFR SUBPART CC GROUP 1 TANKS (>4% HAP)  
 Source Capacity/Throughput: 1,250.000 BBL/HR

Conditions for this source occur in the following groups: G-1 TANKS IFR



This source occurs in alternate operation GROUP 2 TANK SERVIC

**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 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1065]  
 Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
 Recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.1065

**V. REPORTING REQUIREMENTS.**

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1066]  
 Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
 Reporting requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.1066 (b)

**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.**

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1062]  
 Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
 Storage vessel control requirements.**

**SECTION D. Source Level Requirements**

(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with one of the requirements listed in paragraphs (a)(1) through (a)(3) of this section.

(1) Operate and maintain an IFR.

(2) Operate and maintain an EFR.

(3) Equivalent requirements. Comply with an equivalent to the requirements in paragraph (a)(1) or (a)(2) of this section, as provided in §63.1064.

(b) [Reserved]

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1063]**

**Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2**

**Floating roof requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.1063 (a)- (e)

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

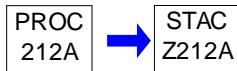
**SECTION D. Source Level Requirements**

Source ID: 212A

Source Name: SUBPART KB &amp; CC LARGE GROUP 1 &amp; 2 IFR TANKS W/VP &gt; 0.5 PSIA

Source Capacity/Throughput: 1,250.000 BBL/HR

Conditions for this source occur in the following groups: KB

**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 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640 (n)(1), (2), and (8)

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

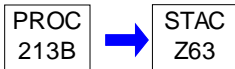


**SECTION D. Source Level Requirements**

Source ID: 213B

Source Name: PRE-KB LARGE GROUP 2 IFR TANKS W/VP &gt;1.5 PSIA, HAP &lt;4%

Source Capacity/Throughput: 1,250.000 BBL/HR



This source occurs in alternate operation SUBPART CC GROUP 1 STORAGE

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(i)(1)

**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.****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**# 004 [25 Pa. Code §129.56]****Storage tanks greater than 40,000 gallons capacity containing VOCs**

(a) No person may permit the placing, storing or holding in a stationary tank, reservoir or other container with a capacity greater than 40,000 gallons of volatile organic compounds with a vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions unless the tank, reservoir or other container is a pressure tank capable of maintaining

**SECTION D. Source Level Requirements**

working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:

(1) An external or an internal floating roof. This control equipment may not be permitted if the volatile organic compounds have a vapor pressure of 11 psia (76 kilopascals) or greater under actual storage conditions.

(2) Vapor recovery system. A vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere. Tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. The vapor recovery system shall be maintained in good working order and recover at least 80% of the vapors emitted by such tank.

(b) An external floating roof shall be fitted with a primary seal and a continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal). The external floating roof shall meet the following equipment requirements:

(1) Seal closure devices shall meet the following requirements:

(i) There are no visible holes, tears or other openings in the seals or seal fabric.

(ii) The seals are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(iii) For tanks with vapor-mounted primary seals, the accumulated area of gaps exceeding 1/8 inch in width between the secondary seal and the tank wall shall not exceed 1 square inch per foot of tank diameter. Compliance with this subsection shall be determined by physically measuring the length and width of gaps around the entire circumference of the secondary seal in each place where a 1/8 inch uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall and by summing the area of the individual gaps.

(2) Openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves, are as follows:

(i) Equipped with covers, seals or lids in the closed position except when the openings are in actual use.

(ii) Equipped with projections into the tank which remain below the liquid surface at all times.

(3) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports.

(4) Rim vents are set to open when the roof is being floated off the leg supports or at the recommended setting of the manufacturer.

(5) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90% of the area of the opening.

(c) An internal floating roof shall be fitted with a primary seal and shall comply with the following equipment requirements:

(1) A closure seal or seals, to close the space between the roof edge and tank wall is used.

(2) There are no holes, tears or other openings in the seal or a seal fabric or materials.

(3) Openings except stub drains are equipped with covers, lids or seals such that:

(i) The cover, lid or seal is in the closed position at all times except when in actual use.

(ii) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports.

**SECTION D. Source Level Requirements**

- (iii) Rim vents, if provided are set to open when the roof is being floated off the roof leg supports or at the recommended setting of the manufacturer.
- (d) This section does not apply to petroleum liquid storage vessels which:
- (1) Are used to store waxy, heavy pour crude oil.
  - (2) Have capacities less than 420,000 gallons and are used to store produced crude oil and condensate prior to lease custody transfer.
- (e) For the purposes of this section, the petroleum liquid storage vessels listed in this subsection comply with the equipment requirements of this section. These tanks shall comply with the maintenance, inspection and reporting requirements of this section. These petroleum liquid storage vessels are those:
- (1) Which contain a petroleum liquid with a true vapor pressure less than 4 psia (27.6 kilopascals) and which are of welded construction and which presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal or other closure device of demonstrated equivalence approved by the Department.
  - (2) Which are of welded construction, equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal).
- (f) The owner or operator of a petroleum liquid storage vessel with a floating roof subject to this regulation shall:
- (1) Perform routine inspections annually in order to insure compliance with subsection (b) or (c). The inspection shall include a visual inspection of the secondary seal gap when inspecting external floating roof tanks.
  - (2) For external floating roof tanks, measure the secondary seal gap annually in accordance with subsection (b)(1)(iii) when the floating roof is equipped with a vapor-mounted primary seal.
  - (3) Maintain records of the types of volatile petroleum liquids stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed in subsection (f)(1) and (2). Copies of the records shall be retained by the owner or operator for a period of 2 years after the date on which the record was made and shall be made available to the Department upon written or verbal request at a reasonable time.
- (g) For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which the storage takes place.
- (h) If a failure is detected during inspections required in this section, the owner or operator, or both, shall repair the items or empty and remove the storage vessel from service within 45 days. If this failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Department. A request for an extension shall document that alternate storage capacity is unavailable and specify a schedule of actions the owner or operator will take that will assure that the equipment will be repaired or the vessel will be emptied as soon as possible but within the additional 30-day time requested.

**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. \*\*\***

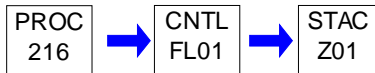
**SECTION D. Source Level Requirements**

Source ID: 216

Source Name: GASOLINE LOADING RACK (BOTTOM)

Source Capacity/Throughput: 110.000 BBL/HR GASOLINE

Conditions for this source occur in the following groups: PA 42-004B (LOADING RACK)

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §129.59]****Bulk gasoline terminals**

(a) A person may not cause or permit the loading of gasoline into a vehicular tank from a bulk gasoline terminal unless the gasoline loading racks are equipped with a vapor collection and disposal system capable of processing volatile organic vapors and gases so that no more than 0.0668 pounds (30.3 grams) of gasoline (measured as propane) are emitted to the atmosphere for every 100 gallons (380 liters) of gasoline loaded.

(b) A person may not cause or permit the loading of gasoline into a vehicular tank from a bulk gasoline terminal unless the gasoline loading racks are equipped with a loading arm with a vapor collection adaptor and pneumatic, hydraulic or other mechanical means to force a vapor-tight seal between the adaptor and the hatch of the tank. A means shall be provided to prevent gasoline drainage from the loading device when it is not connected to the hatch, and to accomplish complete drainage before the removal. When loading is effected through means other than hatches, loading and vapor lines shall be equipped with fittings which make vaportight connections and which will be closed upon disconnection.

(c) An owner or operator of a bulk gasoline plant shall maintain records of daily throughput. These records shall be retained for at least 5 years and shall be made available to the Department on request.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.502]****Subpart XX - Standards of Performance for Bulk Gasoline Terminals****Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 60.502(a),(d - i)

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.422 Standards]****Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.****Loading racks.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.422(a)-(c)

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.428]****Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.****Reporting and recordkeeping.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.428(b),(c),(g)(1), and (h)(1) through (h)(3).

**SECTION D. Source Level Requirements**

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642(a)-(n)

**II. TESTING REQUIREMENTS.**

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.425]  
Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.  
Test methods and procedures.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.425(a - c),(e - h)

**III. MONITORING REQUIREMENTS.**

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.427]  
Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.  
Continuous monitoring.**

(a) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, except as allowed in paragraph (a)(5) of this section.

(1) Does Not Apply.

(2) Does Not Apply

(3) Does Not Apply

(4) Where a flare is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, shall be installed in proximity to the pilot light to indicate the presence of a flame.

(5) Does Not Apply

(b) Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in paragraphs (a)(1) and (a)(2) of this section, or to go below the operating parameter value for the parameter described in paragraph (a)(3) of this section, and established using the procedures in 63.425(b). In cases where an alternative parameter pursuant to paragraph (a)(5) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as specified above, shall constitute a violation of the emission standard in 63.422(b).

**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).

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(b), (d)-(i)

**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.****# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.421]****Subpart R -- National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) SOURCE: 59 FR 64318, Dec. 14, 1994, unless otherwise noted.****Definitions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.421

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a)-(s)

**# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.650]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Gasoline loading rack provisions.**

(a) Except as provided in paragraphs (b) through (d) of this section, each owner or operator of a Group 1 gasoline loading rack classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a petroleum refinery shall comply with subpart R of this part, §§63.421, 63.422(a) through (c) and (e), 63.425(a) through (c) and (e) through (i), 63.427(a) and (b), and 63.428(b), (c), (g)(1), (h)(1) through (3), and (k).

(b) As used in this section, all terms not defined in §63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart R. The §63.641 definition of "affected source" applies under this section.

(c) Gasoline loading racks regulated under this subpart are subject to the compliance dates specified in §63.640(h).

(d) If a flare is used as a control device, on and after January 30, 2019, the flare shall meet the requirements of §63.670. Prior to January 30, 2019, the flare shall meet the applicable requirements of subpart R of this part, or the requirements of §63.670.

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 74 FR 55685, Oct. 28, 2009; 80 FR 75245, Dec. 1, 2015]

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

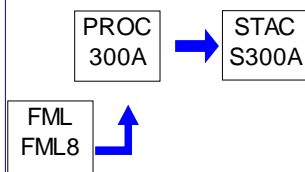
**SECTION D. Source Level Requirements**

Source ID: 300A

Source Name: EMERGENCY GENERATOR ENGINES (40 KW J DEERE &amp; 125 KW CUMMINS)

Source Capacity/Throughput:

13.500 Gal/HR

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

No person may permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

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

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 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal co**

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

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Excerpt from 40 CFR 60.4202

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) Not applicable.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

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89.112 and 89.113 emission standards:

For the 40 kw egen:

NMHC + NO<sub>x</sub> shall not exceed 4.7 grams/kw-hr

CO shall not exceed 5.0 grams/kw-hr

PM shall not exceed 0.4 grams/kw-hr

Opacity percent shall not exceed 20 % in acceleration mode

Opacity shall not exceed 15% during the lugging mode

Opacity shall not exceed 50% during the peaks in either acceleration or lugging mode.

**SECTION D. Source Level Requirements**

For the 125 kw egen:  
 NMHC + NOx shall not exceed 4.0 grams/kw-hr  
 CO shall not exceed 5.0 grams/kw-hr  
 PM shall not exceed 0.3 grams/kw-hr  
 Opacity percent shall not exceed 20 % in acceleration mode  
 Opacity shall not exceed 15% during the lugging mode  
 Opacity shall not exceed 50% during the peaks in either acceleration or lugging mode.

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According to 60.4206, owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

**Fuel Restriction(s).**

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]**  
**Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**  
**What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to**

(a) Not applicable.

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

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40 CFR 80.510(b)

(b)(1) The sulfur content shall not exceed 15 ppmv.

(b)(2) The Cetane index or aromatic content must meet the following requirements:

(i) A minimum cetane index of 40; or

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

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(c) [Reserved]

(d) - (e) Not applicable.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

**Operation Hours Restriction(s).**

**# 005 [25 Pa. Code §127.511]**  
**Monitoring and related recordkeeping and reporting requirements.**

The engines associated with this source shall operate no more than 500 hours during any consecutive twelve (12) month period.

**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.****# 006 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- (a) The permittee shall maintain records of all hours of operation of each engine associated with this source.
- (b) The permittee shall maintain records of all maintenance performed on the engines associated with this source.

**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.****# 007 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

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

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) Not applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) - (e) Not applicable.

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

**SECTION D. Source Level Requirements**

requirements for non-emergency engines.

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

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(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 (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

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

(ii) - (iii) Not applicable.

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

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

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

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

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

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

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

(ii) [Reserved]

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

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

**SECTION D. Source Level Requirements**

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) Not applicable.

(h) Not applicable.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]**

**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

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

(a) Not applicable.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) -(e) Not applicable.

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

**VII. ADDITIONAL REQUIREMENTS.**

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200]**

**Subpart IIII - Standards of Performance for Stationary Compression 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 compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) 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) Not applicable.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Not applicable.

(3) Not applicable.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

**SECTION D. Source Level Requirements**

(b) - (e) Not applicable.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4219]**

**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

**What definitions apply to this subpart?**

See the CFR for the definitions and terms used in Subpart IIII.

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

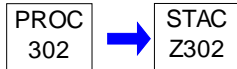
**SECTION D. Source Level Requirements**

Source ID: 302

Source Name: OIL/WATER SEPARATOR (CRUDE UNIT)

Source Capacity/Throughput: 10.000 Gal/HR VOC

Conditions for this source occur in the following groups: 5-WASTEWATER

**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. \*\*\***

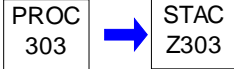
**SECTION D. Source Level Requirements**

Source ID: 303

Source Name: OIL/WATER SEPARATORS (3)

Source Capacity/Throughput: 8.000 Gal/HR VOC

Conditions for this source occur in the following groups: 5-WASTEWATER

**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. \*\*\***

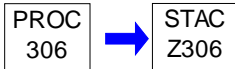
**SECTION D. Source Level Requirements**

Source ID: 306

Source Name: LARGE POST 7/23/84 FIXED ROOF TANKS WITH VP &lt; 0.5 PSIA

Source Capacity/Throughput: 1,250.000 BBL/HR ANY W/ V.P. < 0.5 PSIA  
 1,250.000 BBL/HR ANY W/ V.P. < 0.5 PSIA

Conditions for this source occur in the following groups: V.P. &lt;0.5 PSIA

**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 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]  
 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
 Monitoring of operations.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 60.116b(a)-(b)

**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. \*\*\***

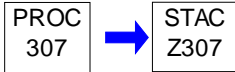
**SECTION D. Source Level Requirements**

Source ID: 307

Source Name: FIXED ROOF GRP 2 SUBPART KB &amp; CC TANKS NOT LISTED ELSEWHERE

Source Capacity/Throughput:	1,250.000 BBL/HR	ANY W/ V.P. $\leq 0.75$ PSIA
	1,250.000 BBL/HR	ANY W/ V.P. $\leq 0.75$ PSIA

Conditions for this source occur in the following groups: V.P.  $\leq 1.5$  PSIA  
V.P.  $\leq 1.5$  PSIA

**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**

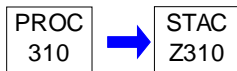
Source ID: 310

Source Name: GASOLINE STORAGE TANK

Source Capacity/Throughput:

48.000 BBL/HR

GASOLINE

**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 §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.

**# 002 [25 Pa. Code §129.61]****Small gasoline storage tank control (Stage 1 control)**

(a) This section applies Statewide.

(b) The following tanks and facilities are exempted:

(1) Stationary storage tanks with a capacity of less than 2,000 gallons (7,600 liters) that were installed before January 1,

**SECTION D. Source Level Requirements**

1979.

(2) Stationary storage tanks with a capacity of less than 250 gallons (950 liters) that were installed after January 1, 1979.

(3) Stationary storage tanks used for agricultural purposes with a capacity of less than 550 gallons (2100 liters). These tanks shall be equipped with a submerged fill pipe.

(c) A person may not transfer gasoline from a delivery vessel into a stationary storage tank unless the displaced vapors from the storage tank are transferred to the dispensing delivery tank through a vapor tight return line and unless the receiving tank is equipped with a submerged fill pipe which extends from the filling orifice to within 6 inches of the bottom of the tank. The vapors collected in the dispensing tank shall be disposed of in accordance with 129.59 or 129.60(c) (relating to bulk gasoline terminals; and bulk gasoline plants).

(d) The dispensing delivery tank shall remain vapor tight at all times. The delivery tank may be opened after the vapors are disposed of in accordance with 129.59 or 129.60(c).

**# 003 [25 Pa. Code §129.62]****General standards for bulk gasoline terminals/plants, and small gasoline storage tanks**

(a) Gasoline may not be spilled or discarded in sewers or stored in open containers or handled in a manner that would result in uncontrolled evaporation to the atmosphere.

(b) An owner or operator of a bulk gasoline plant, bulk gasoline terminal, tank truck or trailer or stationary storage tank to which 129.59, 129.60(b) or (c) or 129.61 (relating to bulk gasoline terminals; bulk gasoline plants; and small gasoline storage tank control (Stage 1 control)) apply may not permit the transfer of gasoline between the tank truck or trailer and a stationary storage tank unless the following conditions are met:

(1) The vapor balance system is in good working order and is designed and operated in a manner that prevents:

(i) Gauge pressure from exceeding 18 inches of water (4500 pascals) and vacuum from exceeding 6 inches of water (1500 pascals) in the gasoline tank truck.

(ii) A reading equal to or greater than 100% of the lower explosive limit--LEL, measured as propane--at 1 inch from points on the perimeter of a potential leak source when measured by the method referenced in 139.14 (relating to emissions of volatile organic compounds) during loading or unloading operations at small gasoline storage tanks, bulk plants and bulk terminals.

(iii) Avoidable liquid leaks during loading or unloading operations at small gasoline storage tanks, bulk plants and bulk terminals.

(2) A truck, vapor balance system or vapor disposal system, if applicable, that exceeds the limits in paragraph (1) is repaired and retested within 15 days.

(3) There are no visually- or audibly-detectable leaks in the tank truck's or trailer's pressure/vacuum relief valves and hatch covers, the truck tanks or storage tanks, or associated vapor and liquid lines during loading or unloading.

(4) The pressure and vacuum relief valves on storage vessels and tank trucks or trailers 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 allowable pressure and vacuum as specified in State or local fire codes, the National Fire Prevention Association guidelines or other National consensus standards acceptable to the Department. Upon demonstration by the owner or operator of an underground small gasoline storage tank that the vapor balance system specified in paragraph (1) will achieve a 90% vapor recovery efficiency without a pressure and vacuum relief valve and that an interlock system, sufficient to ensure connection of the vapor recovery line prior to delivery of the gasoline, will be used--no pressure and vacuum relief valve is required. The vacuum setting on the pressure and vacuum relief valve on an underground storage tank may be set at the lowest vacuum setting which is sufficient to keep the vent closed at zero pressure and vacuum.

**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. \*\*\***

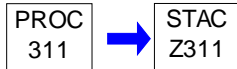
**SECTION D. Source Level Requirements**

Source ID: 311

Source Name: MEDIUM SIZED SUBPART KB GROUP 2 PRODUCT TANKS VP &lt;1.5 PSIA

Source Capacity/Throughput: 1,250.000 BBL/HR ANY W/VP &lt;1.5 PSIA

Conditions for this source occur in the following groups: V.P.&lt;1.5PSIA

**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 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Monitoring of operations.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 60.116b(a)-(c)

**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. \*\*\***

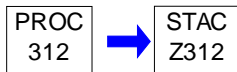
**SECTION D. Source Level Requirements**

Source ID: 312

Source Name: SUBPART KB &amp; CC LARGE GRP 1 &amp; 2 IFR TKS W/VP &gt;0.5 PSIA &amp; GP2

Source Capacity/Throughput: 1,250.000 BBL/HR ANY GROUP 1 PRODUCTS

Conditions for this source occur in the following groups: GP-2 GENERAL REQUIREMENTS  
GP-2 SPECIAL REQUIREMENTS

**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**

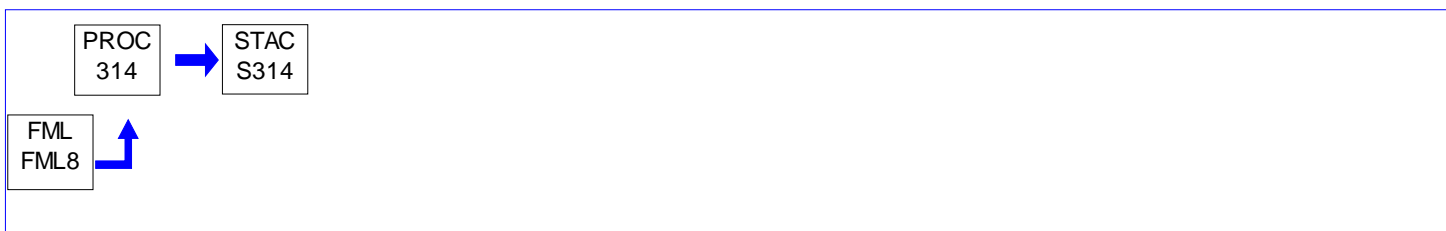
Source ID: 314

Source Name: EMERGENCY GENERATOR 2,923 BHP

Source Capacity/Throughput:

160.100 Gal/HR

Diesel Fuel

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Emissions from this source shall not exceed the following:

NO<sub>x</sub> + NMHC: 6.4 g/kW-hr

CO: 3.5 g/kW-hr

PM: 0.20 g/kW-hr

[limits from 40 CFR §89.112, as specified by §60.4205 via §60.4202]

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

Exhaust opacity from this engine shall not exceed:

(1) 20 percent during the acceleration mode;

(2) 15 percent during the lugging mode; and

(3) 50 percent during the peaks in either the acceleration or lugging modes.

[limits from 40 CFR §89.113]

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal co**

(a) Not applicable

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) - (d) Not applicable

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Not applicable

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**SECTION D. Source Level Requirements****Fuel Restriction(s).****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

All diesel fuel used in this source is subject to the following per-gallon standards:

- (1) Sulfur content.
  - (i) 15 ppm maximum
- (2) Cetane index or aromatic content, as follows:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.

[limits from 40 CFR §80.510(b)]

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

- (a) Not applicable
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- (c) [Reserved]
- (d) - (e) Not applicable

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

**Operation Hours Restriction(s).****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

This source shall not operate in excess of 500 hours per year, calculated as a 12-month rolling total.

**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.****# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- (b) Not applicable

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- a. The permittee shall maintain a record of all preventative maintenance inspections of this source. These records shall, at a minimum, contain the following:
- The dates of inspections/maintenance;
  - Description of any problems or defects;
  - Action taken to correct problems or defects; and
  - Any routine maintenance performed.
- b. The permittee shall maintain monthly records of the hours of operation of this source, to determine compliance with the limits of this Plan Approval.
- c. All records required by this Plan Approval shall be maintained on site for a period of five (5) years and shall be made available to the Department upon request.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

- (a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.
- (1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.
- Name and address of the owner or operator;
  - The address of the affected source;
  - Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
  - Emission control equipment; and
  - Fuel used.
- (2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.
- All notifications submitted to comply with this subpart and all documentation supporting any notification.
  - Maintenance conducted on the engine.
  - If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.
  - If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.
- (b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason



**SECTION D. Source Level Requirements**

the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI 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 §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(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.

(iii) Engine site rating and model year.

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

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

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

(2) 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.

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013]

**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.**

**# 010 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

The source and associated control device shall be:

a. Operated in such a manner as not to cause air pollution.

b. Operated and maintained in a manner consistent with good operating and maintenance practices.

**SECTION D. Source Level Requirements**

c. Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this Plan Approval.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]****Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

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

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

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) Not applicable

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) - (e) Not applicable

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

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

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(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 (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

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

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

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or

**SECTION D. Source Level Requirements**

greater below standard voltage or frequency.

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

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

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

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

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

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

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

(ii) [Reserved]

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

(1) - (2) Not applicable

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

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

**VII. ADDITIONAL REQUIREMENTS.**

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200]**

**Subpart IIII - Standards of Performance for Stationary Compression 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 compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) 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

**SECTION D. Source Level Requirements**

operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

- (i) 2007 or later, for engines that are not fire pump engines;
- (ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

- (i) Manufactured after April 1, 2006, and are not fire pump engines, or
- (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(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 applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE 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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4206]  
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines  
How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

**# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4218]  
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines  
What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

**SECTION D. Source Level Requirements**

**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4219]**  
**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**  
**What definitions apply to this subpart?**

See the CFR for the definitions and terms used in Subpart IIII.

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

**SECTION D. Source Level Requirements**

Source ID: 400

Source Name: COLD CLEANING MACHINES (6)

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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records which include at a minimum, the quantity of solvent added to and removed from each solvent cleaning machine and the dates of the addition and removal. The records shall be kept for a minimum of five years and made available to the Department upon request. The records shall be used to calculate annual emissions from this source.

**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 §129.63]****Degreasing operations**

(a) Cold cleaning machines. Except for those subject to the Federal National emissions standards for hazardous air pollutants (NESHAP) for halogenated solvent cleaners under 40 CFR Part 63 (relating to National emission standards for hazardous air pollutants for source categories), this subsection applies to cold cleaning machines that use 2 gallons or more of solvents containing greater than 5% VOC content by weight for the cleaning of metal parts.

(1) Immersion cold cleaning machines shall have a freeboard ratio of 0.50 or greater.

(2) Immersion cold cleaning machines and remote reservoir cold cleaning machines shall:

(i) Have a permanent, conspicuous label summarizing the operating requirements in paragraph (3). In addition, the label shall include the following discretionary good operating practices:

(A) Cleaned parts should be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts should be positioned so that solvent drains directly back to the cold cleaning machine.

(B) When a pump-agitated solvent bath is used, the agitator should be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned.

(C) Work area fans should be located and positioned so that they do not blow across the opening of the degreaser unit.

(ii) Be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of

**SECTION D. Source Level Requirements**

solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than 6 inches shall constitute an acceptable cover.

(3) Cold cleaning machines shall be operated in accordance with the following procedures:

(i) Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.

(ii) Flushing of parts using a flexible hose or other flushing device shall be performed only within the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.

(iii) Sponges, fabric, wood, leather, paper products and other absorbent materials may not be cleaned in the cold cleaning machine.

(iv) Air agitated solvent baths may not be used.

(v) Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately.

(4) After December 22, 2002, a person may not use, sell or offer for sale for use in a cold cleaning machine any solvent with a vapor pressure of 1.0 millimeter of mercury (mm Hg) or greater and containing greater than 5% VOC by weight, measured at 20°C (68°F) containing VOCs.

(5) On and after December 22, 2002, a person who sells or offers for sale any solvent containing VOCs for use in a cold cleaning machine shall provide, to the purchaser, the following written information:

(i) The name and address of the solvent supplier.

(ii) The type of solvent including the product or vendor identification number.

(iii) The vapor pressure of the solvent measured in mm hg at 20°C (68°F).

(6) A person who operates a cold cleaning machine shall maintain for at least 2 years and shall provide to the Department, on request, the information specified in paragraph (5). An invoice, bill of sale, certificate that corresponds to a number of sales, Material Safety Data Sheet (MSDS), or other appropriate documentation acceptable to the Department may be used to comply with this section.

(7) Paragraph (4) does not apply:

(i) To cold cleaning machines used in extreme cleaning service.

(ii) If the owner or operator of the cold cleaning machine demonstrates, and the Department approves in writing, that compliance with paragraph (4) will result in unsafe operating conditions.

(iii) To immersion cold cleaning machines with a freeboard ratio equal to or greater than 0.75.

(b) - (e) [Do not apply]

**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: 401

Source Name: EMERGENCY DIESEL FIRE WATER PUMPS (3)

Source Capacity/Throughput:

15.000 Gal/HR

Diesel Fuel

Conditions for this source occur in the following groups: SUBPART ZZZZ

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

No person may permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

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

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.

**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).



**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6602]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[78 FR 6701, Jan. 30, 2013]

[From Table 2c of Subpart ZZZZ]

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE less than or equal to 500 HP located at a major source of HAP emissions:

1. For each emergency stationary CI RICE and black start stationary CI RICE you must meet the following requirement, except during periods of startup.
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
  - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

**Notes:**

- 1) If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
- 2) Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.
- 3) Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

(a) - (d) [Do not apply]

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

**SECTION D. Source Level Requirements**

consistent with good air pollution control practice for minimizing emissions:

(1) Not Applicable

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) - (10) Not applicable

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) [Does not apply]

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) Not applicable.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

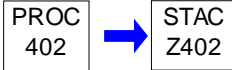
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 402

Source Name: GROUNDWATER WASTEWATER TREATMENT PLANT

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 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7881]****Subpart GGGGG - National Emission Standards for Hazardous Air Pollutants: Site Remediation****Am I subject to this subpart?**

(a) This subpart applies to you if you own or operate a facility at which you conduct a site remediation, as defined in §63.7957; and this site remediation, unless exempted under paragraph (b) or (c) of this section, meets all three of the following conditions specified in paragraphs (a)(1) through (3) of this section.

(1) Your site remediation cleans up a remediation material, as defined in §63.7957.

(2) Your site remediation is co-located at your facility with one or more other stationary sources that emit HAP and meet an affected source definition specified for a source category that is regulated by another subpart under 40 CFR part 63. This condition applies regardless whether or not the affected stationary source(s) at your facility is subject to the standards under the applicable subpart(s).

(3) Your facility is a major source of HAP as defined in §63.2. A major source emits or has the potential to emit any single HAP at the rate of 10 tons (9.07 megagrams) or more per year of any HAP or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year. All emissions of HAP from every source at your facility (i.e., both the site remediation activity and all other facility activities) must be considered in making this calculation.

(b) You are not subject to this subpart if your site remediation qualifies for any of one of the exemptions listed in paragraphs (b)(1) through (6) of this section.

(1) Your site remediation is not subject to this subpart if the site remediation only cleans up material that does not contain any of the HAP listed in Table 1 of this subpart.

(2) Your site remediation is not subject to this subpart if the site remediation will be performed under the authority of the Comprehensive Environmental Response and Compensation Liability Act (CERCLA) as a remedial action or a non time-critical removal action.

(3) Your site remediation is not subject to this subpart if the site remediation will be performed under a Resource Conservation and Recovery Act (RCRA) corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the U.S. Environmental Protection Agency (EPA) or a State program

**SECTION D. Source Level Requirements**

authorized by the EPA under RCRA section 3006; required by orders authorized under RCRA; or required by orders authorized under RCRA section 7003.

(4) Your site remediation is not subject to this subpart if the site remediation is conducted at a gasoline service station to clean up remediation material from a leaking underground storage tank.

(5) Your site remediation is not subject to this subpart if the site remediation is conducted at a farm or residential site.

(6) Your site remediation is not subject to this subpart if the site remediation is conducted at a research and development facility that meets the requirements under Clean Air Act (CAA) section 112(c)(7).

(c) Your site remediation is not subject to this subpart, except for the recordkeeping requirements specified in this paragraph, if the site remediation meets the all of the conditions in paragraphs (c)(1) through (3) of this section.

(1) Before beginning the site remediation, you determine for the remediation material that you will excavate, extract, pump, or otherwise remove during your site remediation that the total quantity of the HAP listed in Table 1 of this subpart which is contained in the material is less than 1 megagram per year (Mg/yr).

(2) You prepare and maintain at your facility written documentation to support your determination of the total HAP quantity used to demonstrate compliance with paragraph (c)(1) of this section. This documentation must include a description of your methodology and data you used for determining the total HAP content of the material.

(3) This exemption may be applied to more than one site remediation at your facility provided that the total quantity of the HAP listed in Table 1 of this subpart for all of your site remediations exempted under this provision is less than 1 Mg/yr.

(d) Your site remediation is not subject to the requirements of this subpart if all remediation activities at your facility subject to this subpart are completed and you have notified the Administrator in writing that all remediation activities subject to this subpart are completed. You must maintain records of compliance, in accordance with §63.7953, for each remediation activity that was subject to this subpart. All future remediation activity meeting the applicability criteria in this section must comply with the requirements of this subpart.

**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 §127.441]

**Operating permit terms and conditions.**

This source is to be maintained and operated in a manner consistent with good air pollution control practices.

**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**

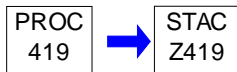
Source ID: 419 Source Name: PRE-KB LARGE SUBPART CC GROUP 2 (&lt;4% HAP)

Source Capacity/Throughput: 1,250.000 BBL/HR

1,250.000 BBL/HR

Conditions for this source occur in the following groups: V.P. &lt;= 1.5 PSIA

V.P.&lt;1.5PSIA



This source occurs in alternate operation SUBPART CC GROUP 1

**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 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(i)(1)

**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. \*\*\***

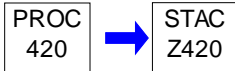
**SECTION D. Source Level Requirements**

Source ID: 420

Source Name: PRE KB RSR GRP1 TK (0.75 PSIA&lt;VP&lt;1.5 PSIA, HAP &gt; 4%) W FLARE

Source Capacity/Throughput: 1,250.000 BBL/HR

1,250.000 BBL/HR



This source occurs in alternate operation GROUP 2 STORAGE VESSEL PROVISIONS

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655 (d) - (i)

**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.****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**VII. ADDITIONAL REQUIREMENTS.****# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Applicability and designation of affected source.**

**SECTION D. Source Level Requirements**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a) - (s)

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]**

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries**

**General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642 (a) - (n)

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.660]**

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries**

**Storage vessel provisions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.660 (a) - (i)

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

**SECTION D. Source Level Requirements**

Source ID: FL01

Source Name: FOSTER BROOK FLARE

Source Capacity/Throughput: 120.000 MMCF/HR Refinery Gas

Conditions for this source occur in the following groups: CC 2015 REV FLARE

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

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.

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

- a) The emissions from the flare shall not exceed the following:
1. Particulate 0.05 lbs/hr
  2. Particulate 0.14 tpy based on a consecutive 12-month period
  3. SO<sub>x</sub> 0.01 lbs/hr
  4. SO<sub>x</sub> 0.04 tpy based on a consecutive 12-month period
  5. NO<sub>x</sub> 1.73 lbs/hr
  6. NO<sub>x</sub> 3.99 tpy based on a consecutive 12-month period
  7. CO 3.71 lbs/hr
  8. CO 8.54 tpy based on a consecutive 12-month period
  9. VOC 1.56 lbs/hr
  10. VOC 3.72 tpy based on a consecutive 12-month period

(b) No person may permit the emission into the outdoor atmosphere of particulate matter in a manner that the concentration of particulate matter in the effluent gas exceeds 0.02 grain per dry standard cubic foot.

[Compliance with the particulate emission limit assures compliance with 25 Pa. Code Section 123.13]

**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).



**SECTION D. Source Level 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) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11]****Subpart A--General Provisions****Control device requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.11

[Provisions in 63.11 will be replaced for this source group by 40 CFR 63.670(a)-(r); 40 CFR 63.671; 40 CFR 63.982(a), (b) & (f); 63.983(a)(3)(i-ii); and 63.984(a)(2), (b) & (c) on or before January 30, 2020.]

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.982]****Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process Requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.982(a), (b) and (f)

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.983]****Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process Closed vent systems.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.983(a)(3)(i)-(ii)

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.984]****Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process****Fuel gas systems and processes to which storage vessel, transfer rack, or equipment leak regulated material emissions are routed.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.984(a)(2), (b) and (c)

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

**SECTION D. Source Level Requirements**

Source ID: FL301

Source Name: REFINERY FLARE

Source Capacity/Throughput: 120.000 MMCF/HR Refinery Gas

Conditions for this source occur in the following groups: CC 2015 REV FLARE  
PLAN APPROVAL 42-004F

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

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.

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

[Plan Approval 42-004H]

Emissions from the flare shall not exceed:

1. PM<sub>10</sub>/PM<sub>2.5</sub> - 0.16 tpy based on a 12-month rolling total
2. CO - 1.71 based on a 12-month rolling total
3. SO<sub>x</sub> - 23.47 based on a 12-month rolling total
4. NO<sub>x</sub> - 6.84 based on a 12-month rolling total
5. VOC - 0.27 based on a 12-month rolling total

**Throughput Restriction(s).****# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-004H]

The maximum volume of waste gas shall not exceed 92.7 MMCF/yr based on a 12 month rolling total as calculated from the flow meter data.

( The volume of NG sweep gas is not included when making this determination based on the assumption that the sweep gas is not "waste gas".)

**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).

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

[Plan Approval 42-004H]

(a) The permittee shall maintain and operate a meter or other approved method to monitor and record the volume of waste gas flared via electronic file, hard copy, or other method approved by the Department.

[Plan Approval 42-004H]

(b) The permittee shall use actual measured flow data from the waste gas flow meter to calculate emissions from waste gas combustion and to demonstrate compliance with the waste gas throughput limit.

**VII. ADDITIONAL REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Alternative Monitoring Plan (AMP) for Hydrogen Sulfide Monitoring for Units subject to 40 CFR Part 60 Subpart Ja Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2017 at American Refining Group's Bradford Refinery approved by EPA on September 6, 2019]

1. ARG shall keep records of each instance where the water seal between the Main Refinery Flare and the FGRS is broken, and shall record the cause of the water seal being broken in on-site records for a period no less than five years.
2. ARG will comply with all Subpart Ja recordkeeping and reporting obligations except as outlined differently in this Alternative Monitoring Plan.
3. The concentration of H<sub>2</sub>S in the gas routed to the Main Refinery Flare will be determined and recorded in on-site records during each release to the Main Refinery Flare, in the following manner:
  - a. Initially, the Main Refinery Flare system will use an assumed H<sub>2</sub>S/TRS concentration of 0.05% (w) to estimate emissions. The 0.05% (w) concentration was calculated by applying the 95% confidence interval to the available sulfur sample data set generated since the FGRU came online.
  - b. A sample of the gas entering the Main Refinery Flare (flare gas sample) will be drawn and collected using an automated sampling system (in lieu of a continuous emission monitoring system), as soon as the water seal is broken.
  - c. The flare gas sample will be analyzed for TRS by a third-party lab, and when available, H<sub>2</sub>S laboratory data will be directly reported also. The resulting H<sub>2</sub>S/TRS concentrations, as determined by the laboratory analysis, will replace the initial assumed H<sub>2</sub>S/TRS value for final reporting purposes.
  - d. The measured H<sub>2</sub>S/TRS value(s) will be used to calculate SO<sub>2</sub> emissions from the flare, and determine compliance with the 500 lb. SO<sub>2</sub> flare emission threshold for any 24-hour period.
  - e. If flaring lasts longer than one hour, additional samples shall be taken on an hourly basis thereafter, to continue monitoring the TRS and H<sub>2</sub>S concentration.

**SECTION D. Source Level Requirements**

f. Flare gas samples will be collected at the start of any subsequent event beginning at least one hour after the previous sample was collected.

g. The presumptive/assumed initial flare H<sub>2</sub>S/TRS concentration values will be recalculated by January 31 of each year using the previous year's analytical results, in setting the value at the upper 95% confidence level of the mean value recorded the prior year.

4. If the automated sampling system is not operating properly due to low flow or other unforeseen conditions, grab samples will be taken manually at the auto sampler location or other representative location. TRS and H<sub>2</sub>S analysis will be performed on the grab samples in accordance with the same procedures established in this AMP for samples obtained from the automated sampling system.

5. ARG is currently sending all Main Refinery Flare fuel gas sulfur samples out for third-party analysis as outlined above. If ARG plans to change this practice in the future, EPA will be notified.

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11]**

**Subpart A--General Provisions**

**Control device requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.11

[Provisions in 63.11 will be replaced for this source group by 40 CFR 63.670(a)-(r); 40 CFR 63.671 on or before January 30, 2020.]

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

**SECTION E. Source Group Restrictions.**

Group Name: 5-WASTEWATER

Group Description: Wastewater

Sources included in this group

ID	Name
302	OIL/WATER SEPARATOR (CRUDE UNIT)
303	OIL/WATER SEPARATORS (3)

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642(a)-(n)

**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.****# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(d)-(i)

**VI. WORK PRACTICE REQUIREMENTS.****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.647]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Wastewater provisions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.647(a)-(d)

[Compliance with this condition ensures compliance with 25 Pa. Code 129.55]

**VII. ADDITIONAL REQUIREMENTS.****# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Applicability and designation of affected source.**

**SECTION E. Source Group Restrictions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a)-(s)

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

**SECTION E. Source Group Restrictions.**

Group Name: BOILER MACT GROUP A

Group Description: Boilers &amp; Process Heaters subject to Annual, Biennial, or every 5 years Tune-Up under 40 CFR 1

**Sources included in this group**

ID	Name
033	BOILER 3
034	BOILER 4
043	PLATFORMER HEATER
044	NMP EXTRACTION HEATER
045	NMP RAFFINATE HEATER
046	UNIFINER HEATER
047	ROSE UNIT HEATER
049	ISOMER UNIT HEATER
050	H-501 HYDROTREATER HEATER
051	H-510 HYDROTREATER STRIPPER HEATER

**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 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7555]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What records must I keep?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7555 (a)(1), and (h)

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7560]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7560 (a) - (c)

**V. REPORTING REQUIREMENTS.****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7530]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

**SECTION E. Source Group Restrictions.**

40 CFR 63.7530(e) and (f)

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7545]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What notifications must I submit and when?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7545(e)(1), (6- 8), (f), and (h)

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7550]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What reports must I submit and when?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7550 (a), (b), (c)(1), (c)(5)(i-iv), (c)(5)(xiv), and (c)(5)(xvii)

**VI. WORK PRACTICE REQUIREMENTS.****# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7500]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7500 (a)(1 and 3), (b), (d), (e), and (f)

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7505]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7505(a)

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7510]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What are my initial compliance requirements and by what date must I conduct them?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7510(e) and (k)

**# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7515]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**When must I conduct subsequent performance tests or fuel analyses, or tune-ups?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:



**SECTION E. Source Group Restrictions.**

40 CFR 63.7515(d) and (g)

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7540]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7540(a)(10 - 13)

**VII. ADDITIONAL REQUIREMENTS.****# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7495]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

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

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7495 (b)

(b) and (d)

**# 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7565]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What parts of the General Provisions apply to me?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7565

**# 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.7575]**

**Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters.**

**What definitions apply to this subpart?**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.7575

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

**SECTION E. Source Group Restrictions.**

Group Name: CC 2015 REV FLARE

Group Description: Requirements of Subpart CC revised 2015 for flares 63.670 and 663.671

**Sources included in this group**

ID	Name
FL01	FOSTER BROOK FLARE
FL301	REFINERY FLARE

**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 63 NESHAPS for Source Categories §40 CFR 63.670]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Requirements for flare control devices.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.670 (a) - (r)

[Provisions in 63.11 will be replaced for this source group by 40 CFR 63.670(a)-(r); 40 CFR 63.671 on or before January 30, 2020.]

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.671]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Requirements for flare monitoring systems.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.671 (a) - (e)

[Provisions in 63.11 will be replaced for this source group by 40 CFR 63.670(a)-(r); 40 CFR 63.671 on or before January 30, 2020.]



**SECTION E. Source Group Restrictions.**

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

**SECTION E. Source Group Restrictions.**

Group Name: G-1 TANKS IFR

Group Description: Group 1 (MACT) Tanks with Internal Floating Roofs

Sources included in this group

ID	Name
212	PRE-KB LARGE IFR SUBPART CC GROUP 1 TANKS (>4% HAP)

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642(a)-(n)

**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.****# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(d)-(i)

**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.****# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a)-(s)

**SECTION E. Source Group Restrictions.**

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.660]**

**Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries**

**Storage vessel provisions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.660 (a) - (i)

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

**SECTION E. Source Group Restrictions.**

Group Name: GP-2 GENERAL REQUIREMENTS

Group Description:

Sources included in this group

ID	Name
312	SUBPART KB & CC LARGE GRP 1 & 2 IFR TKS W/VP >0.5 PSIA & GP2

**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.****# 001 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

## MONITORING

For all storage tanks with floating roofs, the permittee shall annually inspect the roof for compliance with the following:

- a. There shall be no visible holes, tears or other openings in the seals or seal fabric.
- b. All openings, except stub or emergency drains, shall be covered and sealed except when in use.
- c. All automatic bleeder or rim vents shall remain closed except when the roof is floated onto or off its leg supports.
- d. All emergency drains on external floating roofs shall be provided with a slotted membrane fabric which covers at least 90 percent of the area opening.
- e. - f. Not applicable

[From GP-2, General Condition #8]

**IV. RECORDKEEPING REQUIREMENTS.****# 002 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

## RECORDKEEPING

For all storage tanks with floating roofs, the permittee shall keep a record of the following:

- a. the types of volatile organic liquids stored in the tank,
- b. the maximum true vapor pressure of the liquids stored, and;
- c. the results of all inspections required under Condition 8.

The permittee shall keep the records required under Condition 8 for a period of 2 years and shall make those records available to the Department upon request.

[From GP-2, General Condition #9]

**SECTION E. Source Group Restrictions.****V. REPORTING REQUIREMENTS.****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

## REPORTING

40 CFR Section 60.4 requires submission of copies of all requests, reports, applications, submittals and other communications to both the EPA and the Department. The EPA submittals shall be forwarded to:

Director Air Toxics and Radiation Division  
US EPA Region III  
841 Chestnut Street  
Philadelphia PA 19107

Any notification required as a result of any condition contained herein should be directed to the regional office of the Department of Environmental Protection responsible for the county where the storage tank(s) covered by this Storage Tank General Permit is located.

The permittee shall immediately notify the Department of any malfunction of the source or any associated air cleaning device(s) which result in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection.

The permittee shall notify the Department and EPA, as appropriate, of changes in the products stored in a tank and describe how the change affects applicable requirements and how those applicable requirements are being met. In accordance with 25 Pa. Code §127.14(c), this notice shall be provided 7 days prior to a change that involves no equipment changes or 15 days prior to a change that involves equipment changes.

[From GP-2, General Condition #10]

**VI. WORK PRACTICE REQUIREMENTS.****# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

## COMPLIANCE

Any storage tank operating under this Storage Tank General Permit must comply with the terms and conditions of the general permit. The storage tank and any associated air cleaning devices shall be:

- a. operated in such a manner as not to cause air pollution.
- b. operated and maintained in a manner consistent with good operating and maintenance practices.
- c. operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this Storage Tank General Permit.

[From GP-2, General Condition #4]

**VII. ADDITIONAL REQUIREMENTS.****# 005 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

## General Permits at Title V Facilities

Any storage tank located at a "Title V facility" as defined in 25 Pa. Code §121.1, shall comply with the requirements of 25 Pa. Code §127.514 (relating to general operating permits at Title V facilities).

[From GP-2, General Condition #11]

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APPLICABLE LAWS

**SECTION E. Source Group Restrictions.**

Nothing in this Storage Tank General Permit relieves the permittee from its obligation to comply with all applicable Federal, state and local laws and regulations. This Storage Tank General Permit does not prohibit changes in the products stored in a particular tank provided that the tank meets all applicable requirements for the storage of the alternate product and the change is reported in accordance with the last paragraph of condition 10.

[From GP-2, General Condition #16]

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**REGULATORY CONFLICTS**

Wherever a conflict occurs between this general plan approval and operating permit and any of the regulations listed below, the permittee shall, in all cases, meet the more stringent requirement:

- a. 25 Pa. Code §§129.56 and 129.57
- b. 40 CFR Part 60, Subparts K, Ka and Kb
- c. 40 CFR Part 63, Subparts F, G and CC

[From GP-2, General Condition #19]

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



**SECTION E. Source Group Restrictions.**

Group Name: GP-2 SPECIAL REQUIREMENTS

Group Description:

Sources included in this group

ID	Name
312	SUBPART KB & CC LARGE GRP 1 & 2 IFR TKS W/VP >0.5 PSIA & GP2

**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 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Testing and procedures.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.113b

**III. MONITORING REQUIREMENTS.**

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Monitoring of operations.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.116b

**IV. RECORDKEEPING REQUIREMENTS.**

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.115b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.115b

**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.**

**# 004 [25 Pa. Code §127.511]  
Monitoring and related recordkeeping and reporting requirements.**

Construction Requirements for Tanks with Capacities Equal to or Greater than 151 Cubic Meters (39,889 Gallons) and Constructed, Reconstructed or Last Modified On or After July 23, 1984

These storage tanks which store organic liquids at vapor pressures greater than 0.75 psia and lower than 11.1 psia, shall include one of the following control systems which meet the requirements of 40 CFR §60.112b:

a. A fixed roof with an internal floating roof equipped with a liquid seal, a mechanical seal or a double set of seals.

**SECTION E. Source Group Restrictions.**

b. An external floating roof equipped with a double set of seals. The primary seal shall be either a mechanical seal or a liquid mounted seal.

c. A closed vent system with a control device, which has received prior approval by the Department, capable of reducing volatile organic compound (VOC) emissions by 95 percent or more.

[From GP-2, Special Condition #25]

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Standard for volatile organic compounds (VOC).**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.112b

[Compliance with the listed NSPS and/or NESHAP conditions for this source ensures compliance with 25 Pa. Code 129.56]

**VII. ADDITIONAL REQUIREMENTS.**

**# 006 [25 Pa. Code §127.511]  
Monitoring and related recordkeeping and reporting requirements.**

Operating Requirements for Tanks with Capacities Greater than 40 Cubic Meters (10,556 Gallons) Which Were Constructed, Reconstructed or Last Modified On or After July 23, 1984

The storage tank shall also operate in accordance with the following conditions:

- a. The storage tank is subject to the emission limitations of the New Source Performance Standard, 40 CFR Part 60, Subpart Kb.
- b. The storage tank shall be tested in conformance with the requirements of 40 CFR §60.113b.
- c. The storage tank owner or operator shall keep records of tank usage, descriptions, certifications, tests, inspections and repairs in conformance with 40 CFR §60.115b.
- d. The storage tank owner or operator shall monitor storage tank operations in conformance with 40 CFR §60.116b.
- e. In accordance with Condition 10, all reports and notifications required under 40 CFR §§60.113b(a)(5); 60.113b(b)(5); 60.113b(c)(1); 60.115b(a)(3); 60.115(b)(1), (2) & (4); 60.115b(d)(1) & (3); and 60.116b(d) shall be provided to the Department and to the EPA.

[From GP-2, Special Condition #26]

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National Emission Standards for Hazardous Air Pollutants

This condition applies to any storage tank located in a facility regulated by 40 CFR Part 63 Subparts G and CC (relating to Maximum Achievable Control Technology standards for petroleum refineries).

- a. Existing tanks, as described below, shall comply with the provisions of 40 CFR Part 63, Subparts CC and G by August 18, 2005:
  - i. Tanks with a capacity of 75 cubic meters (19,812 gallons) and less than 151 cubic meters (39,889 gallons) storing organic hazardous air pollutants with vapor pressures of less than 11.1 psia (76.6 kPa) and equal to or larger than 1.9 psia (13.1 kPa).
  - ii. Tanks with a capacity of 151 cubic meters (39,889 gallons) or greater storing organic hazardous air pollutants with vapor pressures of less than 11.1 psia (76.6 kPa) and equal to or larger than 0.75 psia (5.2 kPa).

**SECTION E. Source Group Restrictions.**

b. New tanks or tank modified after July 14, 1994, shall comply with the provisions of 40 CFR Part 63, Subparts F and G upon construction. Furthermore, new tanks, as described in the following are subject to Subparts G and CC:

i. Tanks with a capacity of 38 cubic meters (10,038 gallons) and less than 151 cubic meters (39,889 gallons) storing organic hazardous air pollutants with vapor pressures of less than 11.1 psia (76.6 kPa) and equal to or larger than 1.9 psia (13.1 kPa).

ii. Tanks with a capacity of 151 cubic meters (39,889 gallons) or greater storing organic hazardous air pollutants with vapor pressures of less than 11.1 psia (76.6 kPa) and equal to or larger than 0.1 psia (0.7 kPa).

c. This Storage Tank General Permit shall not be used for any tank which is larger or has a higher vapor pressure than those listed in Conditions 27 a. and b.

d. Fixed roof tanks shall use an internal floating roof with a liquid seal, mechanical seal or a double set of seals in conformance with 40 CFR §§63.119 and 63.646. If a vapor mounted seal is in place as of July 15, 1994, the tank shall be equipped with either a liquid seal, mechanical seal or a double set of seals the next time the tank is emptied or degassed but in no event later than August 18, 2005.

e. External floating roof tanks shall be equipped with a double set of seals in conformance with 40 CFR §§63.119 and 63.646. The primary seal shall be either a mechanical seal or a liquid mounted seal. Any existing tank shall be equipped with the previously described seals the next time the tank is emptied or degassed but in no event later than August 18, 2005.

f. Any tank may use a closed vent with a control device which has received prior approval by the Department and is capable of reducing volatile organic compound (VOC) emissions by 95 percent or more and conforms to the requirements of 40 CFR §§63.119 and 63.646.

g. Inspection, reporting and recordkeeping shall be done in conformance with 40 CFR Part 63, Subpart CC.

[From GP-2, Special Condition #28]

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.110b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Applicability and designation of affected facility.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.110b

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(n)(1), (n)(2), and (n)(8)

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

**SECTION E. Source Group Restrictions.**

Group Name: HYDROTREATER HEATERS

Group Description: Hydrotreater Heaters

Sources included in this group

ID	Name
050	H-501 HYDROTREATER HEATER
051	H-510 HYDROTREATER STRIPPER HEATER

**I. RESTRICTIONS.****Emission Restriction(s).**

# 001 [25 Pa. Code §123.11]

**Combustion units**

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate 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.

**Fuel Restriction(s).**

# 002 [25 Pa. Code §127.12b]

**Plan approval terms and conditions.**

This source shall operate using only refinery fuel gas or natural gas as a fuel.

# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.104]

**Subpart J - Standards of Performance for Petroleum Refineries****Standards for sulfur oxides.**

(a) No owner or operator subject to the provisions of this subpart shall:

(1) Burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H<sub>2</sub>S) in excess of 230 mg/dscm (0.10 gr/dscf).

**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).

**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).

**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: KB

Group Description: Subpart Kb for Source ID: 212A Tanks 173, 224 &amp; 613

Sources included in this group

ID	Name
212A	SUBPART KB & CC LARGE GROUP 1 & 2 IFR TANKS W/VP > 0.5 PSIA

**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 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.113b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Testing and procedures.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.113b

**III. MONITORING REQUIREMENTS.**

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.116b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Monitoring of operations.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.116b

**IV. RECORDKEEPING REQUIREMENTS.**

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.115b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.115b

**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.**

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.112b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Standard for volatile organic compounds (VOC).**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.112b

**SECTION E. Source Group Restrictions.**

[Compliance with the listed NSPS and/or NESHAP condition for this source ensures compliance with 25 Pa. Code 129.56]

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.110b]  
Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984  
Applicability and designation of affected facility.**

The permittee shall comply with the following applicable requirements as identified below. [See Section C, Site Level Requirements, Additional Requirements, for conditions.]

40 CFR 60.110b

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

**SECTION E. Source Group Restrictions.**

Group Name: PA 42-004B (LOADING RACK)

Group Description: Plan Approval for Flare (FL01) (from Loading Rack)

**Sources included in this group**

ID	Name
216	GASOLINE LOADING RACK (BOTTOM)

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds (TOC) per liter of gasoline loaded. (The definition of TOC in 40 CFR 63.641 excludes methane and ethane). The TOC is measured as propane.

**Throughput Restriction(s).****# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The loading racks shall not process more than 220,000 gallons per day or 40,000,000 gallons per year based on a consecutive 12-month period.

**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 E. Source Group Restrictions.**

Group Name: PA 42-004B (TANKS)

Group Description: Plan Approval for Flare (FL01) (from tanks)

Sources included in this group

ID	Name
	202A PRE-KB LARGE SUBPART CC GRP 1 TKS (>4% HAP) CONTROL W FLARE

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642(a)-(n)

**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.****# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(d)-(i)

**VI. WORK PRACTICE REQUIREMENTS.****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The source shall be maintained and operated in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**# 004 [25 Pa. Code §129.56]****Storage tanks greater than 40,000 gallons capacity containing VOCs**

(a) No person may permit the placing, storing, or holding in a stationary tank, reservoir, or other container with a capacity greater than 40,000 gallons of any volatile organic compounds with a vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions unless such tank, reservoir or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:

(1) Does Not Apply

**SECTION E. Source Group Restrictions.**

(2) Vapor recovery system. A vapor recovery system consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere. Tank gauging and sampling devices shall be gas tight except when gauging or sampling is taking place. The vapor recovery system shall be maintained in good working order and recover at least 80% of the vapors emitted by such tank.

(b) Does Not Apply

(c) Does Not Apply

(d) This section shall not apply to petroleum liquid storage vessels which:

(1) Are used to store waxy, heavy pour crude oil.

(2) Have capacities less than 420,000 gallons and are used to store produced crude oil and condensate prior to lease custody transfer.

(e) For the purposes of this section, the petroleum liquid storage vessels listed below comply with the equipment requirements of this section. These tanks shall comply with the maintenance, inspection, and reporting requirements of this section. These petroleum liquid storage vessels are those:

(1) Which contain a petroleum liquid with a true vapor pressure less than 4 psia (27.6 kilopascals) and which are of welded construction and which presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved by the Department.

(2) Which are of welded construction, equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal).

(f) Does Not Apply

(g) For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which such storage takes place.

**VII. ADDITIONAL REQUIREMENTS.****# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a)-(s)

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.660]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Storage vessel provisions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.660 (a) - (i)

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

**SECTION E. Source Group Restrictions.**

Group Name: PLAN APPROVAL 42-004F

Group Description: Plan Approval 42-004F

**Sources included in this group**

ID	Name
FL301	REFINERY FLARE

**I. RESTRICTIONS.****Fuel Restriction(s).**

# 001 [25 Pa. Code §127.12b]

**Plan approval terms and conditions.**

[Plan Approval 42-004H]

The pilot system for the Refinery Flare (Control Device ID #FL301) shall use natural gas as a fuel source.

**Throughput Restriction(s).**

# 002 [25 Pa. Code §127.12b]

**Plan approval terms and conditions.**

[Plan Approval 42-004F]

The maximum volume of natural gas combusted in the pilot system, as a 12 month rolling total, shall not exceed 1.3176 MMCF/yr.

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

# 003 [25 Pa. Code §127.12b]

**Plan approval terms and conditions.**

[Plan Approval 42-004F]

The new flare tip system shall provide a 98% reduction of VOC. Compliance with this condition shall be documented by written vendor guarantee.

**II. TESTING REQUIREMENTS.**

# 004 [25 Pa. Code §127.12b]

**Plan approval terms and conditions.**

[Plan Approval 42-004F]

(a) [Condition no longer applies]

[Plan Approval 42-004F]

(b) Within 180 days after initial startup of the new flare system, performance testing shall be conducted. This includes monitoring the net heat value of combusted gas, flow rate of gases being combusted, and exit velocity. [This condition will be replaced by 40 CFR 63.670 effective January 30, 2020.]

[Plan Approval 42-004F]

(c) Within 180 days after initial startup of the new flare system and semi-annually thereafter, analysis of the sulfur content of the RFG sent to the flare shall be conducted. [This condition will be replaced with the AMP sampling condition when the AMP is formally approved by EPA.]

[Plan Approval 42-004F]

(d) [Condition no longer applies]

[Plan Approval 42-004F]

(e) All performance testing that is required by this plan approval shall be performed in accordance with the latest version of the Stack Testing Manual and the following conditions unless the permittee requests in writing and the Department

**SECTION E. Source Group Restrictions.**

approves in writing specific changes.

1. Pursuant to 25 Pa. Code 139.3, at least 45 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department for review and approval. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
2. The emission tests of the above sources shall be performed in accordance with the provisions of Chapter 139 to determine compliance with the respective emissions limits in this condition. The stack tests shall be performed while the aforementioned sources are operating under normal operating conditions.
3. Pursuant to 25 Pa. Code 139.3 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 appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
4. Pursuant to 25 Pa. Code Section 139.53(a)(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 shall be sent to the Department's Division of Source Testing and Monitoring indicating the completion date of the on-site testing.
5. Pursuant to 40 CFR Part 63.7(g) a complete test reports shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program.
6. Pursuant to 25 Pa. Code Section 139.53(b) 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 plan approval condition.
  - d. Statement of compliance or non-compliance with each applicable plan approval condition.
7. Pursuant to 25 Pa. Code § 139.3 all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
8. All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
9. Pursuant to 25 Pa. Code Section § 139.53(a)(1) and § 139.53(a)(3) 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. If internet submittal cannot be accomplished, three copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.
10. The permittee shall insure all federal 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.

**III. MONITORING REQUIREMENTS.**

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

**SECTION E. Source Group Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-004F]

Monthly records of refinery gas flared and natural gas combusted in the pilot system shall be kept on file for a minimum of five years and made available to the Department 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.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-004F]

(a) The permittee shall calculate the volume of natural gas combusted in the pilot system based on the manufacturer's pilot gas consumption rating.

[Plan Approval 42-004F]

(b) The source shall be maintained and operated in accordance with the manufacturer's specifications and in accordance with good air pollution control practices. The facility shall follow the recommended manufacturer's maintenance schedule. A copy of the manufacturer's specifications and manufacturer's recommended preventative maintenance schedule shall be kept on site and made available to the Department upon request. [Compliance with this condition assures compliance with 25 Pa Code 123.13 - Particulate Matter Emissions - Processes.]

[Plan Approval 42-004F]

(c) Flares shall be operated with a flame present at all times. 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.

[For determining whether the Main Refinery Flare pilot flame is present, a temperature of less than 450F recorded for both thermocouples (P-TI-201 & P-TI-202) will indicate that the pilot flame is not present.]

**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: SUBPART UUU

Group Description:

Sources included in this group

ID	Name
150	PLATFORMER REFORMER REACTOR VESSEL

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1567]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my requirements for inorganic HAP emissions from catalytic reforming units?**

(a) What emission limitations and work practice standards must I meet? You must:

(1) Meet each emission limitation in Table 22 to this subpart that applies to you. If you operate a catalytic reforming unit in which different reactors in the catalytic reforming unit are regenerated in separate regeneration systems, then these emission limitations apply to each separate regeneration system. These emission limitations apply to emissions from catalytic reforming unit process vents associated with the coke burn-off and catalyst rejuvenation operations during coke burn-off and catalyst regeneration. You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) (Option 1) Not applicable; or

(ii) You can elect to meet an HCl concentration limit (Option 2).

(2) Meet each site-specific operating limit in Table 23 of this subpart that applies to you. These operating limits apply during coke burn-off and catalyst rejuvenation.

++++  
Table 22 Item 1:

For each existing semi-regenerative catalytic reforming unit, you shall meet this emission limit for each applicable catalytic reforming unit process vent during coke burn-off and catalyst rejuvenation [Reduce uncontrolled emissions of hydrogen chloride (HCl) by 92 percent by weight or to a concentration of 30 ppmv (dry basis), corrected to 3 percent oxygen.]

Table 23 Item 2:

For each applicable process vent for a new or existing catalytic reforming unit with this type of control device (Internal scrubbing system or no control device (e.g., hot regen system) meeting outlet HCl concentration limit), you shall meet this operating limit during coke burn-off and catalyst rejuvenation [The daily average HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test.]

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(3) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(b) [See Monitoring Requirements]

(c) [See Monitoring Requirements]

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6939, Feb. 9, 2005]

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1571]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**



**SECTION E. Source Group Restrictions.**

**How and when do I conduct a performance test or other initial compliance demonstration?**

(a) When must I conduct a performance test? You must conduct performance tests and report the results by no later than 150 days after the compliance date specified for your source in §63.1563 and according to the provisions in §63.7(a)(2). If you are required to do a performance evaluation or test for a semi-regenerative catalytic reforming unit catalyst regenerator vent, you may do them at the first regeneration cycle after your compliance date and report the results in a followup Notification of Compliance Status report due no later than 150 days after the test.

(1) For each emission limitation or work practice standard where initial compliance is not demonstrated using a performance test, opacity observation, or visible emission observation, you must conduct the initial compliance demonstration within 30 calendar days after the compliance date that is specified for your source in §63.1563.

(2) - (6) [Does not apply]

(b) What are the general requirements for performance test and performance evaluations? You must:

(1) Performance tests shall be conducted according to the provisions of §63.7(e) except that performance tests shall be conducted at maximum representative operating capacity for the process. During the performance test, you must operate the control device at either maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction. You must not conduct a performance test during startup, shutdown, periods when the control device is bypassed or periods when the process, monitoring equipment or control device is not operating properly. You may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that the test was conducted at maximum representative operating capacity. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Except for opacity and visible emission observations, conduct three separate test runs for each performance test as specified in §63.7(e)(3). Each test run must last at least 1 hour.

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63.7(e)(3):

Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—

- (i) A sample is accidentally lost after the testing team leaves the site; or
- (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
- (iii) Extreme meteorological conditions occur; or
- (iv) Other circumstances occur that are beyond the owner or operator's control.

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(3) Conduct each performance evaluation according to the requirements in §63.8(e).

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Performance evaluation of continuous monitoring systems—(1) General. When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) Notification of performance evaluation. The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under §63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3)(i) Submission of site-specific performance evaluation test plan. Before conducting a required CMS performance

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evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in §63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) Conduct of performance evaluation and performance evaluation dates. The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under §63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under §63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under §63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under §63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in §63.7(a), or as otherwise specified in the relevant standard.

(5) Reporting performance evaluation results. (i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under



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§63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under §63.7 is conducted.

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(4) [Does not apply]

(c) What procedures must I use for an engineering assessment? You may choose to use an engineering assessment to calculate the process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate expected to yield the highest daily emission rate when determining the emission reduction or outlet concentration for the organic HAP standard for catalytic reforming units. If you use an engineering assessment, you must document all data, assumptions, and procedures to the satisfaction of the applicable permitting authority. An engineering assessment may include the approaches listed in paragraphs (c)(1) through (c)(4) of this section. Other engineering assessments may be used but are subject to review and approval by the applicable permitting authority.

(1) You may use previous test results provided the tests are representative of current operating practices at the process unit, and provided EPA methods or approved alternatives were used;

(2) You may use bench-scale or pilot-scale test data representative of the process under representative operating conditions;

(3) You may use maximum flow rate, TOC emission rate, organic HAP emission rate, or organic HAP or TOC concentration specified or implied within a permit limit applicable to the process vent; or

(4) You may use design analysis based on engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(i) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(ii) Calculation of hourly average maximum flow rate based on physical equipment design such as pump or blower capacities; and

(iii) Calculation of TOC concentrations based on saturation conditions.

(d) Can I adjust the process or control device measured values when establishing an operating limit? If you do a performance test to demonstrate compliance, you must base the process or control device operating limits for continuous parameter monitoring systems on the results measured during the performance test. You may adjust the values measured during the performance test according to the criteria in paragraphs (d)(1) through (3) of this section.

(1) - (4) [Does not apply]

(e) Can I change my operating limit? You may change the established operating limit by meeting the requirements in paragraphs (e)(1) through (3) of this section.

(1) You may change your established operating limit for a continuous parameter monitoring system by doing an additional performance test, a performance test in conjunction with an engineering assessment, or an engineering assessment to verify that, at the new operating limit, you are in compliance with the applicable emission limitation.

(2) You must establish a revised operating limit for your continuous parameter monitoring system if you make any change in process or operating conditions that could affect control system performance or you change designated conditions after the last performance or compliance tests were done. You can establish the revised operating limit as described in paragraph (e)(1) of this section.



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(3) You may change your site-specific opacity operating limit or Ni operating limit only by doing a new performance test.

[67 FR 17773, Apr. 11, 2002, as amended at 80 FR 75276, Dec. 1, 2015]

**III. MONITORING REQUIREMENTS.**

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1566]**

**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**

**What are my requirements for organic HAP emissions from catalytic reforming units?**

(a) [See "Work Practices Requirements".]

(b) How do I demonstrate initial compliance with the emission limitations and work practice standard? You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 17 of this subpart.

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Table 17 Option 1:

For each applicable process vent for a new or existing catalytic reforming unit using option 1 (vent to a flare) you shall install and operate this type of continuous monitoring system [On and after January 30, 2019, the monitoring systems required in §§63.670 and 63.671. Prior to January 30, 2019, monitoring device such as a thermocouple, an ultraviolet beam sensor, or infrared sensor to continuously detect the presence of a pilot flame, or the monitoring systems required in §§63.670 and 63.671.]

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(2) Conduct each performance test for a catalytic reforming unit according to the requirements in §63.1571 and under the conditions specified in Table 18 of this subpart.

(3) Establish each site-specific operating limit in Table 16 of this subpart that applies to you according to the procedures in Table 18 of this subpart.

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Table 18 Option 1:

For each new or existing catalytic reforming unit you must:

a. Conduct visible emission observations using Method 22 (40 CFR part 60, appendix A-7) according to these requirements [On and after January 30, 2019, the flare must meet the requirements of §63.670. Prior to January 30, 2019, 2-hour observation period. Record the presence of a flame at the pilot light over the full period of the test, or the requirements of §63.670].

b. Determine that the flare meets the requirements for net heating value of the gas being combusted and exit velocity using 40 CFR 63.11(b)(6) through (8) according to these requirements [On and after January 30, 2019, the flare must meet the requirements of §63.670. Prior to January 30, 2019, the flare must meet the control device requirements in §63.11(b) or the requirements of §63.670.]

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(4) Use the procedures in paragraph (b)(4)(i) or (ii) of this section to determine initial compliance with the emission limitations.

(i) [Does not apply.]

(ii) [Does not apply]

(5) You are not required to do a TOC performance test if:

(i) You elect to vent emissions to a flare as provided in paragraph (a)(1)(i) of this section (Option 1); or

(ii) [Does not apply]

(6) Demonstrate initial compliance with each emission limitation that applies to you according to Table 19 of this subpart.

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Table 19 Option 1:

For each applicable process vent for a new or existing catalytic reforming unit, subject to visible emissions from a flare that must not exceed a total of 5 minutes during any 2 consecutive hours, you have demonstrated initial compliance if on and after January 30, 2019, the flare meets the requirements of §63.670. Prior to January 30, 2019, visible emissions, measured using Method 22 over the 2-hour observation period of the performance test, do not exceed a total of 5 minutes, or the flare meets the requirements of §63.670.

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(7) Demonstrate initial compliance with the work practice standard in paragraph (a)(5) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(8) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) How do I demonstrate continuous compliance with the emission limitations and work practice standards? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 15 and 16 of this subpart that applies to you according to the methods specified in Tables 20 and 21 of this subpart.

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+ Table 20 Option 1:

For each applicable process vent for a new or existing catalytic reforming unit that vent emissions from your process vent to a flare, you shall demonstrate continuous compliance during initial catalyst depressuring and catalyst purging operations by [On and after January 30, 2019, meeting the requirements of §63.670. Prior to January 30, 2019, maintaining visible emissions from a flare below a total of 5 minutes during any 2 consecutive hours, or meeting the requirements of §63.670.]

Table 21 Option 1:

For each applicable process vent for a new or existing catalytic reforming unit using option 1, if you use a flare, the flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it. You shall demonstrate continuous compliance during initial catalyst depressuring and purging operations by [On and after January 30, 2019, meeting the requirements of §63.670. Prior to January 30, 2019, collecting flare monitoring data according to §63.1572 and recording for each 1-hour period whether the monitor was continuously operating and the pilot light was continuously present during each 1-hour period, or meeting the requirements of §63.670.]

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(2) Demonstrate continuous compliance with the work practice standards in paragraph (a)(3) of this section by complying with the procedures in your operation, maintenance, and monitoring plan.

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6938, Feb. 9, 2005; 80 FR 75275, Dec. 1, 2015; 81 FR 45243, July 13, 2016]

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1567]  
Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units  
What are my requirements for inorganic HAP emissions from catalytic reforming units?**

(b) How do I demonstrate initial compliance with the emission limitations and work practice standard? You must:

(1) Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 24 of this subpart.

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Table 24 Item 2:

If you use an internal scrubbing system or no control device (e.g., hot regen system) to meet the HCl outlet concentration limit, you shall install and operate this type of continuous monitoring system [Colormetric tube sampling system to measure the HCl concentration in the catalyst regenerator exhaust gas during coke burn-off and catalyst rejuvenation. The colormetric tube sampling system must meet the requirements in Table 41 of this subpart.]

Table 41 Item 3:



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If you use a colormetric tube sampling system you shall use a colormetric tube system with a printed numerical scale in ppmv, a standard measurement range of 1 to 10 ppmv (or 1 to 30 ppmv if applicable), and a standard deviation for measured values of no more than ± 15 percent. System must include a gas detection pump and hot air probe if needed for the measurement range."

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(2) Conduct each performance test for a catalytic reforming unit according to the requirements in §63.1571 and the conditions specified in Table 25 of this subpart.

(3) Establish each site-specific operating limit in Table 23 of this subpart that applies to you according to the procedures in Table 25 of this subpart.

(4) Use the equations in paragraphs (b)(4)(i) through (iv) of this section to determine initial compliance with the emission limitations. [See the CFR for the equations]

(5) Demonstrate initial compliance with each emission limitation that applies to you according to Table 26 of this subpart.

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Table 26 Item 1:

For each existing semi-regenerative catalytic reforming unit with the emission limit of 30ppmv (dry basis), corrected to 3 percent oxygen, you have demonstrated initial compliance if the average emissions HCl measured using Method 26 or 26A, as applicable, over the period of the performance test, are less than or equal to 30 ppmv (dry basis) corrected to 3 percent oxygen.

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(6) Demonstrate initial compliance with the work practice standard in paragraph (a)(3) of this section by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.

(7) Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.

(c) To demonstrate continuous compliance with the emission limitations and work practice standard? You must:

(1) Demonstrate continuous compliance with each emission limitation in Tables 22 and 23 of this subpart that applies to you according to the methods specified in Tables 27 and 28 of this subpart.

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+Table 27 reads, in part, as follows:

For each existing semi-regenerative catalytic reforming unit you must demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by maintaining a HCl concentration of no more than 30 ppmv (dry basis), corrected to 3 percent oxygen.

+Table 28 reads, in part, as follows:

"For each new and existing catalytic reforming unit you shall demonstrate continuous compliance during coke burn-off and catalyst rejuvenation by measuring and recording the HCl concentration at least 4 times during a regeneration cycle (equally spaced in time) or every 4 hours, whichever is more frequent, using a colormetric tube sampling system; calculating the daily average HCl concentration as an arithmetic average of all samples collected in each 24-hour period from the start of the coke burn-off cycle or for the entire duration of the coke burn-off cycle if the coke burn-off cycle is less than 24 hours; and maintaining the daily average HCl concentration below the applicable operating limit."

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(2) Demonstrate continuous compliance with the work practice standard in paragraph (a)(3) of this section by maintaining records to document conformance with the procedures in your operation, maintenance and monitoring plan.

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6939, Feb. 9, 2005]

**SECTION E. Source Group Restrictions.****# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1572]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What are my monitoring installation, operation, and maintenance requirements?**

(a) [Does not apply]

(b) [Does not apply]

(c) [Non- applicable text omitted] For flares, on and after January 30, 2019, you must install, operate, calibrate, and maintain monitoring systems as specified in §§63.670 and 63.671. Prior to January 30, 2019, you must either meet the monitoring system requirements in paragraphs (c)(1) through (5) of this section or meet the requirements in §§63.670 and 63.671.

[Note: Prior to January 30, 2019, the thermocouple on the flare and the associated recording system constitutes the required continuous parameter monitoring system for the platformer catalyst regeneration process.]

(1) You must install, operate, and maintain each continuous parameter monitoring system according to the requirements in Table 41 of this subpart. You must also meet the equipment specifications in Table 41 of this subpart if pH strips or colorimetric tube sampling systems are used. You must install, operate, and maintain each continuous parameter monitoring system according to the requirements in Table 41 of this subpart. You must meet the requirements in Table 41 of this subpart for BLD systems. Alternatively, before August 1, 2017, you may install, operate, and maintain each continuous parameter monitoring system in a manner consistent with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately.

(2) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data (or at least two if a calibration check is performed during that hour or if the continuous parameter monitoring system is out-of-control).

(3) Each continuous parameter monitoring system must have valid hourly average data from at least 75 percent of the hours during which the process operated, except for BLD systems.

(4) Each continuous parameter monitoring system must determine and record the hourly average of all recorded readings and if applicable, the daily average of all recorded readings for each operating day, except for BLD systems. The daily average must cover a 24-hour period if operation is continuous or the number of hours of operation per day if operation is not continuous, except for BLD systems.

(5) Each continuous parameter monitoring system must record the results of each inspection, calibration, and validation check.

(d) You must monitor and collect data according to the requirements in paragraphs (d)(1) and (2) of this section.

(1) You must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times the affected source is operating.

(2) You may not use data recorded during required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments) for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6940, Feb. 9, 2005; 80 FR 75277, Dec. 1, 2015]

**IV. RECORDKEEPING REQUIREMENTS.****# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1576]****Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units****What records must I keep, in what form, and for how long?**

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(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

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

(2) The records specified in paragraphs (a)(2)(i) through (iv) of this section.

(i) Record the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown.

(ii) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time and duration of each failure.

(iii) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(iv) Record actions taken to minimize emissions in accordance with §63.1570(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in §63.10(b)(2)(viii).

(b) For each continuous emission monitoring system and continuous opacity monitoring system, you must keep the records required in paragraphs (b)(1) through (5) of this section.

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

(2) Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) The performance evaluation plan as described in §63.8(d)(2) for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, you must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under §63.8(d)(2).

(4) Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in §63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

(c) You must keep the records in §63.6(h) for visible emission observations.

(d) You must keep records required by Tables 6, 7, 13, and 14 of this subpart (for catalytic cracking units); Tables 20, 21, 27 and 28 of this subpart (for catalytic reforming units); Tables 34 and 35 of this subpart (for sulfur recovery units); and Table 39 of this subpart (for bypass lines) to show continuous compliance with each emission limitation that applies to you.

(e) You must keep a current copy of your operation, maintenance, and monitoring plan onsite and available for inspection. You also must keep records to show continuous compliance with the procedures in your operation, maintenance, and monitoring plan.

(f) You also must keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.



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- (g) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- (h) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (i) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6942, Feb. 9, 2005; 80 FR 75279, Dec. 1, 2015]

**V. REPORTING REQUIREMENTS.**

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1574]**  
**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**  
**What notifications must I submit and when?**

(a) Except as allowed in paragraphs (a)(1) through (3) of this section, you must submit all of the notifications in §§63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6), and 63.9(b) through (h) that apply to you by the dates specified.

(1) You must submit the notification of your intention to construct or reconstruct according to §63.9(b)(5) unless construction or reconstruction had commenced and initial startup had not occurred before April 11, 2002. In this case, you must submit the notification as soon as practicable before startup but no later than July 10, 2002. This deadline also applies to the application for approval of construction or reconstruction and approval of construction or reconstruction based on State preconstruction review required in §§63.5(d)(1)(i) and 63.5(f)(2).

(2) You must submit the notification of intent to conduct a performance test required in §63.7(b) at least 30 calendar days before the performance test is scheduled to begin (instead of 60 days).

(3) If you are required to conduct an initial performance test, performance evaluation, design evaluation, opacity observation, visible emission observation, or other initial compliance demonstration, you must submit a notification of compliance status according to §63.9(h)(2)(ii). You can submit this information in an operating permit application, in an amendment to an operating permit application, in a separate submission, or in any combination. In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved, you must provide a duplicate notification to the applicable Regional Administrator. If the required information has been submitted previously, you do not have to provide a separate notification of compliance status. Just refer to the earlier submissions instead of duplicating and resubmitting the previously submitted information.

(i) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status no later than 30 calendar days following completion of the initial compliance demonstration.

(ii) For each initial compliance demonstration that includes a performance test, you must submit the notification of compliance status, including the performance test results, no later than 150 calendar days after the compliance date specified for your affected source in §63.1563.

(b) As specified in §63.9(b)(2), if you startup your new affected source before April 11, 2002, you must submit the initial notification no later than August 9, 2002.

(c) [Does not apply]

(d) You also must include the information in Table 42 of this subpart in your notification of compliance status.

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+Table 42 contains the following requirements:

For . . .	You shall provide this additional information . . .
1. Identification of affected	Nature, size, design, method of

**SECTION E. Source Group Restrictions.**

sources and emission points. operation, operating design capacity of each affected source; identify each emission point for each HAP; identify any affected source or vent associated with an affected source not subject to the requirements of subpart UUU.

2. Initial compliance..... Identification of each emission limitation you will meet for each affected source, including any option you select (i.e., NSPS, PM or Ni, flare, percent reduction, concentration, options for bypass lines); if applicable, certification that you have already conducted a performance test to demonstrate initial compliance with the NSPS for an affected source; certification that the vents meet the applicable emission limit and the continuous opacity or that the emission monitoring system meets the applicable performance specification; if applicable, certification that you have installed and verified the operational status of equipment by your compliance date for each bypass line that meets the requirements of Option 2, 3, or 4 in § 63.1569 and what equipment you installed; identification of the operating limit for each affected source, including supporting documentation; if your affected source is subject to the NSPS, certification of compliance with NSPS emission limitations and performance specifications; a brief description of performance test conditions (capacity, feed quality, catalyst, etc.); an engineering assessment (if applicable); and if applicable, the flare design (e.g., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the Method 22 test.

3. Continuous compliance..... Each monitoring option you elect; and identification of any unit or vent for which monitoring is not required; and the definition of "operating day." (This definition, subject to approval by the applicable permitting authority, must specify the times at which a 24-hr operating day begins and ends.)

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**SECTION E. Source Group Restrictions.**

(e) [Does not apply]

(f) As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system for each affected source. The purpose of this plan is to detail the operation, maintenance, and monitoring procedures you will follow.

(1) You must submit the plan to your permitting authority for review and approval along with your notification of compliance status. While you do not have to include the entire plan in your permit under part 70 or 71 of this chapter, you must include the duty to prepare and implement the plan as an applicable requirement in your part 70 or 71 operating permit. You must submit any changes to your permitting authority for review and approval and comply with the plan as submitted until the change is approved.

(2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (xii) of this section.

(i) Process and control device parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.

(iii) Procedures that you will use to determine the coke burn-rate, the volumetric flow rate (if you use process data rather than direct measurement), and the rate of combustion of liquid or solid fossil fuels if you use an incinerator-waste heat boiler to burn the exhaust gases from a catalyst regenerator.

(iv) - (v) [Does not apply]

(vi) Procedures you will use to determine the HCl concentration of gases from a catalytic reforming unit when you use a colorimetric tube sampling system, including procedures for correcting for pressure (if applicable to the sampling equipment) and the sampling locations that will be used for compliance monitoring purposes.

(vii) [Does not apply]

(viii) Monitoring schedule, including when you will monitor and when you will not monitor an affected source (e.g., during the coke burn-off, regeneration process).

(ix) Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system you use to meet an emission limit in this subpart. This plan must include procedures you will use for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.

(x) Maintenance schedule for each monitoring system and control device for each affected source that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.

(xi) If you use a fixed-bed gas-solid adsorption system to control emissions from a catalytic reforming unit, you must implement corrective action procedures if the HCl concentration measured at the selected compliance monitoring sampling location within the bed exceeds the operating limit. These procedures must require, at minimum, repeat measurement and recording of the HCl concentration in the adsorption system exhaust gases and at the selected compliance monitoring sampling location within the bed. If the HCl concentration at the selected compliance monitoring location within the bed is above the operating limit during the repeat measurement while the HCl concentration in the adsorption system exhaust gases remains below the operating limit, the adsorption bed must be replaced as soon as practicable. Your procedures must specify the sampling frequency that will be used to monitor the HCl concentration in the adsorption system exhaust gases subsequent to the repeat measurement and prior to replacement of the sorbent material (but not less frequent than once every 4 hours during coke burn-off). If the HCl concentration of the adsorption system exhaust gases is above the operating limit when measured at any time, the adsorption bed must be replaced within 24 hours or before the next regeneration cycle, whichever is longer.

(xii) Procedures that will be used for purging the catalyst if you do not use a control device to comply with the organic HAP emission limits for catalytic reforming units. These procedures will include, but are not limited to, specification of the minimum catalyst temperature and the minimum cumulative volume of gas per mass of catalyst used for purging prior to



**SECTION E. Source Group Restrictions.**

uncontrolled releases (i.e., during controlled purging events); the maximum purge gas temperature for uncontrolled purge events; and specification of the monitoring systems that will be used to monitor and record data during each purge event.

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6941, Feb. 9, 2005; 80 FR 75278, Dec. 1, 2015]

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1575]**

**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**

**What reports must I submit and when?**

(a) You must submit each report in Table 43 of this subpart that applies to you.

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+Table 43 contains the following information:

You must submit a Compliance report semiannually according to the requirements in § 63.1575(b).

If there are not deviations from any emission limitation or work practice standard that applies to you, a statement that there were no deviations from the standards during the reporting period and that no continuous opacity monitoring system or continuous emission monitoring system was inoperative, inactive, out-of-control, repaired, or adjusted; and if you have a deviation from any emission limitation or work practice standard during the reporting period, the report must contain the information in § 63.1575(d) or (e).

++++

(b) Unless the Administrator has approved a different schedule, you must submit each report by the date in Table 43 of this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.1563 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your affected source in §63.1563.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.1563.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

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

(4) If there are no deviations from any emission limitation that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(d) For each deviation from an emission limitation and for each deviation from the requirements for work practice standards that occurs at an affected source where you are not using a continuous opacity monitoring system or a continuous

**SECTION E. Source Group Restrictions.**

emission monitoring system to comply with the emission limitation or work practice standard in this subpart, the semiannual compliance report must contain the information in paragraphs (c)(1) through (3) of this section and the information in paragraphs (d)(1) through (4) of this section.

(1) The total operating time of each affected source during the reporting period and identification of the sources for which there was a deviation.

(2) Information on the number, date, time, duration, and cause of deviations (including unknown cause, if applicable).

(3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(4) The applicable operating limit or work practice standard from which you deviated and either the parameter monitor reading during the deviation or a description of how you deviated from the work practice standard.

(e) [Does not apply]

(f) You also must include the information required in paragraphs (f)(1) through (2) of this section in each compliance report, if applicable.

(1) You must include the information in paragraph (f)(1)(i) or (ii) of this section, if applicable.

(i) If you are complying with paragraph (k)(1) of this section, a summary of the results of any performance test done during the reporting period on any affected unit. Results of the performance test include the identification of the source tested, the date of the test, the percentage of emissions reduction or outlet pollutant concentration reduction (whichever is needed to determine compliance) for each run and for the average of all runs, and the values of the monitored operating parameters.

(ii) If you are not complying with paragraph (k)(1) of this section, a copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual compliance report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, you must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., you want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in your compliance report. You must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) You may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) [Reserved]

(i) - (j) [Does not apply]

(k) Electronic submittal of performance test and CEMS performance evaluation data. For performance tests or CEMS performance evaluations conducted on and after February 1, 2016, if required to submit the results of a performance test or CEMS performance evaluation, you must submit the results according to the procedures in paragraphs (k)(1) and (2) of this section.



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(1) Within 60 days after the date of completing each performance test as required by this subpart, you must submit the results of the performance tests following the procedure specified in either paragraph (k)(1)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) Performance test data must be submitted in a file format generated through use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (k)(1)(i).

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(2) Within 60 days after the date of completing each CEMS performance evaluation required by §63.1571(a) and (b), you must submit the results of the performance evaluation following the procedure specified in either paragraph (k)(2)(i) or (ii) of this section.

(i) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI is accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If you claim that some of the performance evaluation information being submitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (k)(2)(i).

(ii) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

[67 FR 17773, Apr. 11, 2002, as amended at 80 FR 75278, Dec. 1, 2015]

**VI. WORK PRACTICE REQUIREMENTS.**

**# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1566]**

**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**

**What are my requirements for organic HAP emissions from catalytic reforming units?**

(a) What emission limitations and work practice standards must I meet? You must:

(1) Meet each emission limitation in Table 15 of this subpart that applies to you.

+++++

Table 15 Option 1:

For each applicable process vent for a new or existing catalytic reforming unit, you shall meet this emission limit during initial catalyst depressuring and catalyst purging operations [On and after January 30, 2019, vent emissions to a flare that meets the requirements of §63.670. Prior to January 30, 2019, vent emissions to a flare that meets the requirements for control devices in §63.11(b) and visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour

**SECTION E. Source Group Restrictions.**

operating period, or vent emissions to a flare that meets the requirements of §63.670.]

+++++

You can choose from the two options in paragraphs (a)(1)(i) through (ii) of this section:

(i) You can elect to vent emissions of total organic compounds (TOC) to a flare (Option 1). On and after January 30, 2019, the flare must meet the requirements of §63.670. Prior to January 30, 2019, the flare must meet the control device requirements in §63.11(b) or the requirements of §63.670.

+++++

+40 CFR 63.11(b) reads as follows:

"Flares. (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. 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.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) [Does not apply]

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

(Formula omitted...refer to regulation for exact formula notation).

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=Constant = (Exact value omitted...refer to regulation for exact value notation).

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

C<sub>i</sub>=Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

H<sub>i</sub>=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 §63.14) if published values are not available or cannot be calculated.

n=Number of sample components.



**SECTION E. Source Group Restrictions.**

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity Vmax, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, Vmax, for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(\text{Vmax})=(\text{HT}+28.8)/31.7$$

Where:

Vmax=Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

HT=The net heating value as determined in paragraph (b)(6) of this section.

(8) [Does not apply]

+++++

(ii) [Does not apply]

(2) Comply with each site-specific operating limit in Table 16 of this subpart that applies to you.

+++++

Table 16 Option 1 (Vent to flare):

You shall meet this operating limit during initial catalyst depressuring and purging operations. On and after January 30, 2019, the flare must meet the requirements of §63.670. Prior to January 30, 2019, the flare pilot light must be present at all times and the flare must be operating at all times that emissions may be vented to it, or the flare must meet the requirements of §63.670.

+++++

(3) Except as provided in paragraph (a)(4) of this section, the emission limitations in Tables 15 and 16 of this subpart apply to emissions from catalytic reforming unit process vents associated with initial catalyst depressuring and catalyst purging operations that occur prior to the coke burn-off cycle. The emission limitations in Tables 15 and 16 of this subpart do not apply to the coke burn-off, catalyst rejuvenation, reduction or activation vents, or to the control systems used for these vents.

(4) The emission limitations in tables 15 and 16 of this subpart do not apply to emissions from process vents during passive depressuring when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less or during active depressuring or purging prior to January 30, 2019, when the reactor vent pressure is 5 psig or less. On and after January 30, 2019, the emission limitations in tables 15 and 16 of this subpart do apply to emissions from process vents during active purging operations (when nitrogen or other purge gas is actively introduced to the reactor vessel) or active depressuring (using a vacuum pump, ejector system, or similar device) regardless of the reactor vent pressure.

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(5) Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the procedures in the plan.

(b) [See Monitoring Requirements]

(c) [See Monitoring Requirements]

[67 FR 17773, Apr. 11, 2002, as amended at 70 FR 6938, Feb. 9, 2005; 80 FR 75275, Dec. 1, 2015; 81 FR 45243, July 13, 2016]

**VII. ADDITIONAL REQUIREMENTS.**

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1570]**

**Subpart UUU-National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units**

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

(a) You must be in compliance with all of the non-opacity standards in this subpart at all times.

(b) You must be in compliance with the opacity and visible emission limits in this subpart at all times.

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

(d) During the period between the compliance date specified for your affected source and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, you must maintain a log that documents the procedures used to minimize emissions from process and emissions control equipment according to the general duty in paragraph (c) of this section.

(e) [Reserved]

(f) You must report each instance in which you did not meet each emission limitation and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet the work practice standards in this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.1575.

[67 FR 17773, Apr. 11, 2002, as amended at 71 FR 20462, Apr. 20, 2006; 80 FR 75276, Dec. 1, 2015]

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

**SECTION E. Source Group Restrictions.**

Group Name: SUBPART ZZZZ

Group Description: RICE general requirements

Sources included in this group

ID	Name
401	EMERGENCY DIESEL FIRE WATER PUMPS (3)

**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 63 NESHAPS for Source Categories §40 CFR 63.6580]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What is the purpose of subpart ZZZZ?**

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

[73 FR page 3603, Jan. 18, 2008, eff. Mar. 18, 2008]

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Am I subject to this subpart?**

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



**SECTION E. Source Group Restrictions.**

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 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.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) - (3) Not applicable.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]**

**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

**What parts of my plant does this subpart cover?**

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

**SECTION E. Source Group Restrictions.**

- (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (3) Reconstructed stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
- (b) Stationary RICE subject to limited requirements. (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).
- (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).
- (ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.
- (3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:
- (i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).
- (iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
- (1) A new or reconstructed stationary RICE located at an area source;
- (2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major

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source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****When do I have to comply with this subpart?**

(a) Affected sources. (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18,

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2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my general requirements for complying with this subpart?**

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

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

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) - (d) [Does not apply]

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. [Non-applicable text omitted]

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the

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requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.

(ii) - (iii) [Vacated]

(3) Emergency stationary RICE located at major sources of HAP 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 (f)(2) 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 supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) [Does not apply]

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

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

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

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

(3) Not applicable.

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

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

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(b) - (c) [Do not apply]

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

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[From Paragraph 9, of Table 6]

9. For each existing emergency and black start stationary RICE less than or equal to 500 HP located at a major source of HAP, complying with work or Management practices, you must demonstrate continuous compliance by:

i.) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

ii.) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

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(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) Not applicable.

(2) An existing stationary emergency RICE.

(3) Not applicable.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) Not applicable.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]**

**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

**SECTION E. Source Group Restrictions.****# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6670]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Who implements and enforces this subpart?**

- (a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:
- (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).
  - (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
  - (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
  - (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
  - (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

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

**SECTION E. Source Group Restrictions.**Group Name: V.P.  $\leq$  1.5 PSIA

Group Description:

Sources included in this group

ID	Name
307	FIXED ROOF GRP 2 SUBPART KB & CC TANKS NOT LISTED ELSEWHERE
419	PRE-KB LARGE SUBPART CC GROUP 2 (<4% HAP)

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**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: V.P. &lt;0.5 PSIA

Group Description:

Sources included in this group

ID	Name
306	LARGE POST 7/23/84 FIXED ROOF TANKS WITH VP < 0.5 PSIA

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 0.5 PSIA.

**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: V.P.&lt;1.5PSIA

Group Description: Tanks with limit of 1.5 psia on contents

**Sources included in this group**

ID	Name
307	FIXED ROOF GRP 2 SUBPART KB & CC TANKS NOT LISTED ELSEWHERE
311	MEDIUM SIZED SUBPART KB GROUP 2 PRODUCT TANKS VP <1.5 PSIA
419	PRE-KB LARGE SUBPART CC GROUP 2 (<4% HAP)

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**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 F. Alternative Operation Requirements.**

Alternative Operation Name: GROUP 2 STORAGE VESSEL PROVISIONS

**#001 CHANGES FROM NORMAL OPERATION**

Subpart CC Group 2 tank service requirements

Sources included in this Alternative Operation:

ID	Name	Source Type
420	PRE KB RSR GRP1 TK (0.75 PSIA<VP<1.5 PSIA, HAP > 4%) W FLARE	Process

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(i)(1)

**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.****# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**VII. ADDITIONAL REQUIREMENTS.**

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

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: GROUP 2 TANK SERVIC

**#001 CHANGES FROM NORMAL OPERATION**

Use of tank as in Subpart CC Group 2 Service

Sources included in this Alternative Operation:

ID	Name	Source Type
212	PRE-KB LARGE IFR SUBPART CC GROUP 1 TANKS (>4% HAP)	Process

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(i)(1)

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**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).

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: SUBPART CC GROUP 1

**#001 CHANGES FROM NORMAL OPERATION**

Use of Tank as Group 1 storage vessel under Subpart 40 CFR Part 60 Subpart CC.

Sources included in this Alternative Operation:

ID	Name	Source Type
419	PRE-KB LARGE SUBPART CC GROUP 2 (<4% HAP)	Process

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655 (d) - (i)

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**VII. ADDITIONAL REQUIREMENTS.****# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a) - (s)

**SECTION F. Alternative Operation Requirements.****# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642 (a) - (n)

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.660]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries****Storage vessel provisions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.660 (a) - (i)

**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: SUBPART CC GROUP 1 STORAGE

**#001 CHANGES FROM NORMAL OPERATION**

Storage tank used in service of Subpart CC Group 1

Sources included in this Alternative Operation:

ID	Name	Source Type
213B	PRE-KB LARGE GROUP 2 IFR TANKS W/VP >1.5 PSIA, HAP <4%	Process

**I. RESTRICTIONS.****Emission Restriction(s).**

**# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.642]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
General standards.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.642(a)-(n)

**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 63 NESHAPS for Source Categories §40 CFR 63.1065]  
Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
Recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.1065

**V. REPORTING REQUIREMENTS.**

**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1066]  
Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
Reporting requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.1066 (b)

**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]  
Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(d)-(i)

**SECTION F. Alternative Operation 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 63 NESHAPS for Source Categories §40 CFR 63.1062]****Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
Storage vessel control requirements.**

(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with one of the requirements listed in paragraphs (a)(1) through (a)(3) of this section.

(1) Operate and maintain an IFR.

(2) Operate and maintain an EFR.

(3) Equivalent requirements. Comply with an equivalent to the requirements in paragraph (a)(1) or (a)(2) of this section, as provided in §63.1064.

(b) [Reserved]

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1063]****Subpart WW - National Emission Standards for Storage Vessels (Tanks)-Control Level 2  
Floating roof requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.1063 (a)- (e)

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.640]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Applicability and designation of affected source.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.640(a)-(s)

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.660]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries  
Storage vessel provisions.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.660 (a) - (i)



**SECTION F. Alternative Operation Requirements.**

Alternative Operation Name: SUBPART CC GROUP 2 STORAGE

**#001 CHANGES FROM NORMAL OPERATION**

Storage service as Group 2 for Subpart CC

Sources included in this Alternative Operation:

ID	Name	Source Type
202A	PRE-KB LARGE SUBPART CC GRP 1 TKS (>4% HAP) CONTROL W FLARE	Process

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records of the substances stored in each of the tanks in this group. These records shall indicate the material stored, the time period of storage, and the vapor pressures of the materials stored.

**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.655]****Subpart CC -- National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries Reporting and recordkeeping requirements.**

The permittee shall comply with the following applicable requirements as identified below [See Section C, Site Level Requirements, Additional Requirements, for condition]:

40 CFR 63.655(i)(1)

**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 §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The vapor pressure of materials stored in the tanks associated with this source shall be no greater than 1.5 PSIA.

**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 G. Emission Restriction Summary.**

Source Id	Source Description		
033	BOILER 3		
<b>Emission Limit</b>			
0.325	Lbs/MMBTU	RACT 2 alternative emission limit	NOX
120.000	Tons/Yr	12 month rolling total	NOX
4.000	Lbs/MMBTU	Any 1-hour period	SOX
034	BOILER 4		
<b>Emission Limit</b>			
0.325	Lbs/MMBTU	RACT 2 Alternative Emission Limit	NOX
120.000	Tons/Yr	12 month rolling total	NOX
4.000	Lbs/MMBTU	1 hour period	SOX
035	BOILER #6		
<b>Emission Limit</b>			
6.900	Lbs/Hr		CO
30.230	Tons/Yr	based on a 12-month rolling total	CO
6.210	Lbs/Hr		NOX
27.210	Tons/Hr	based on a 12-month rolling total	NOX
0.690	Lbs/Hr		VOC
3.020	Tons/Yr	based on a 12-month rolling total	VOC
041	CRUDE UNIT HEATER		
<b>Emission Limit</b>			
1.110	Lbs/Hr		CO
4.900	Tons/Yr		CO
12.250	Lbs/Hr	RACT 2 alternative emission limit	NOX
53.600	Tons/Yr		NOX
9.540	Lbs/Hr		SOX
41.800	Tons/Yr		SOX
0.400	Lbs/MMBTU		TSP
0.440	Lbs/Hr		TSP
1.900	Tons/Yr		TSP
0.090	Lbs/Hr		VOC
0.400	Tons/Yr		VOC
043	PLATFORMER HEATER		
<b>Emission Limit</b>			
0.250	Lbs/MMBTU	RACT 2 Alternative Emission Limit	NOX
4.000	Lbs/MMBTU		SOX
0.400	Lbs/MMBTU		TSP
044	NMP EXTRACTION HEATER		
<b>Emission Limit</b>			
4.000	Lbs/MMBTU		SOX
0.400	Lbs/MMBTU		TSP

**SECTION G. Emission Restriction Summary.**

Source Id	Source Descriptor
045	NMP RAFFINATE HEATER
<b>Emission Limit</b>	
0.290 Lbs/Hr	CO
1.300 Tons/Yr	CO
1.170 Lbs/Hr	NOX
5.100 Tons/Yr	NOX
0.180 Lbs/Hr	SOX
0.800 Tons/Yr	SOX
0.020 Lbs/Hr	TSP
0.100 Tons/Yr	TSP
0.400 Lbs/MMBTU	TSP
0.020 Lbs/Hr	VOC
0.100 Tons/Yr	VOC
046	UNIFINER HEATER
<b>Emission Limit</b>	
4.000 Lbs/MMBTU	SOX
0.400 Lbs/MMBTU	TSP
047	ROSE UNIT HEATER
<b>Emission Limit</b>	
4.000 Lbs/MMBTU	SOX
0.400 Lbs/MMBTU	TSP
050	H-501 HYDROTREATER HEATER
<b>Emission Limit</b>	
0.400 Lbs/MMBTU	TSP
051	H-510 HYDROTREATER STRIPPER HEATER
<b>Emission Limit</b>	
0.400 Lbs/MMBTU	TSP
1001	HYDROTREATER UNIT
<b>Emission Limit</b>	
0.040 gr/DRY FT3	TSP
300A	EMERGENCY GENERATOR ENGINES (40 KW J DEERE & 125 KW CUMMINS)
<b>Emission Limit</b>	
500.000 PPMV	SOX
0.040 gr/DRY FT3	TSP
314	EMERGENCY GENERATOR 2,923 BHP
<b>Emission Limit</b>	
3.500 GRAMS/KW-Hr	CO
6.400 GRAMS/KW-Hr	NOx+NMHC

**SECTION G. Emission Restriction Summary.**

Source Id	Source Descriptor		
0.200	GRAMS/KW-Hr		TSP
401	EMERGENCY DIESEL FIRE WATER PUMPS (3)		
<b>Emission Limit</b>		<b>Pollutant</b>	
500.000	PPMV		SOX
0.040	gr/DRY FT3		TSP
FL01	FOSTER BROOK FLARE		
<b>Emission Limit</b>		<b>Pollutant</b>	
3.710	Lbs/Hr		CO
8.540	Tons/Yr		CO
1.730	Lbs/Hr		NOX
3.990	Tons/Yr		NOX
0.010	Lbs/Hr		SOX
0.040	Tons/Yr		SOX
500.000	PPMV		SOX
0.020	gr/DRY FT3		TSP
0.050	Lbs/Hr		TSP
0.140	Tons/Yr		TSP
1.560	Lbs/Hr		VOC
3.720	Tons/Yr		VOC
FL301	REFINERY FLARE		
<b>Emission Limit</b>		<b>Pollutant</b>	
1.710	Tons/Yr	based on a 12-month rolling total	CO
6.840	Tons/Yr	based on a 12-month rolling total	NOX
0.160	Tons/Yr	based on a 12-month rolling total	PM10
0.160	Tons/Yr	based on a 12-month rolling total	PM2.5
23.470	Tons/Yr	based on a 12-month rolling total	SOX
500.000	PPMV		SOX
0.160	Tons/Yr	based on a 12-month rolling total	TSP
0.270	Tons/Yr	based on a 12-month rolling total	VOC

**Site Emission Restriction Summary**

Emission Limit	Pollutant
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**SECTION G. Emission Restriction Summary.****Alternative Operation Emission Restriction Summary**

Source Id	Source Description
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**SECTION H. Miscellaneous.**

## NOTES:

Emission limits given in Section F of this permit are for informational purposes only. The actual emission limits are contained in Sections C and D of this permit.

The source capacities/throughputs listed in this permit are for informational purposes only and do not necessarily represent regulatory limits. However, as described in Section B, Condition #007(c), any capacity / throughput information contained in applications for plan approvals and operating permits may be considered by the Department to be physical configurations and engineering design details which are essential for determining compliance with applicable requirements contained in this permit.

The following is a list of activities for which there are no applicable emission limitations, testing, monitoring, recordkeeping, or reporting requirements.

- Maintenance and Machine Shop
- Misc. Office Equipment and Copiers Throughout the Plant.
- Portable Space Heaters and Other Electrically Operated Equipment.
- Emissions from the Engines Powering Mobile Vehicles.
- Construction or Demolition of Buildings or Structures.
- The tanks identified as Insignificant in the attached Table.
- Cooling Towers located at the Crude Unit, the Rose Unit and the MEK Unit.

NOTE: For permit modification issued on December 15, 2006.

In order to establish a federally enforceable limit, and avoid possibly being drawn into the BART program at a later date, American Refining Group has decided to take an elective VOC restriction on date eligible sources (Source ID: 033 Boiler #3, Source ID: 034 - Boiler #4, and Source ID: C301 - Refinery Gas Flare). With these limitations and the BART synthetic minor limits in place, this facility should never be subject to the requirements of 40 CFR, Part 51, Subpart P.

This Operating Permit was administratively amended on June 16, 2008 to correct a typographical error for the BART restrictions in Sources 033, 034, and C301 by clarifying the emissions can not equal or exceed 250 TPY for NOx, PM-10, SOx, or VOCs based on the definitions of BART eligible source and an existing stationary facility in 40 CFR Section 51.301.

A Minor Modification of this Operating Permit was issued on December 8, 2008. This modification removed #4 and #6 fuel oil from the fuel sources used by Source IDs: 033 and 034. The removal of these fuel sources reduces the potential emissions from the previously BART eligible sources to below the applicability limits. There are no longer any sources at this facility subject to the BART Program requirements. All BART emission restrictions, monitoring, and record keeping requirements have been removed from the permit.

This permit was administratively amended on October 13, 2009, to incorporate the changes brought about by Plan Approval Numbers: 42-004B and 42-004D.

Source ID: 202A includes the following tanks: 601, 602, 607, 608, 611, 612, 617, and 618.

Source ID: 212 includes the following tanks: 246 and 247.

Source ID: 212A includes the following tanks: 224, 613, and 173

Source ID: 213B includes the following tanks: 154, 619, 620, 711, 719, 720, 721, 722, and 616

Source ID: 306 includes the following tanks: 30, 39, 90, 91, 102, 124, 135, 152, 171, 225, 262, 332, 333, 364, 365, 366, 395 thru 399, 605, 621, 622, 801, 802

Source ID:307 includes the following small tanks (sized below the 19,813 gallon Subpart Kb threshold) that were installed after the Subpart Kb applicability dates: 96, 97, 99, 635, and 636. Source ID 307 also contains all remaining tanks at the refinery that are below Subpart CC threshold for both vapor pressure and HAP content.

Source ID: 310 includes gasoline tank 29

**SECTION H. Miscellaneous.**

Source ID: 311 includes the following tanks: 417, 418, 587, 588, 589, 590, 3013, and 3014.

Source ID: 312 includes the following tanks: 600, 603, 609, 610, and 723.

Source ID: 419 includes Tank 419

Source ID: 420 includes Tank 420

This permit was administratively amended on April 18, 2012 to incorporate the conditions from Plan Approval 42-004E. Plan Approval 42-004E superceded Plan Approval 42-004C.

This permit was administratively amended on September 13, 2012 for typographical corrections to Source 041 and 045.

This permit was modified on May 7, 2014 to incorporate the Boiler MACT requirements and to incorporate the boiler 5 MACT Extension and include milestones for the replacement of Boiler 5.

This permit was administratively amended on July 2, 2014 to incorporate the requirements of Plan Approval 42-004G.

This permit was administratively amended on October 30, 2014 to incorporate the requirements of Plan Approval 42-004H. PA 42-004F superceded PA 42-004F.

This permit was administratively amended on February 23, 2016 to incorporate the requirements of Plan Approval 42-004I for Source 314 (2,923HP Emergency Generator manufactured by Kohler, model S16R-Y2PTAW2-1).

Source 300A consists of the following emergency generators approved by RFD:

Crude Unit Emergency Generator build date 6/4/11 serial #F110223031 Mfg by Cummins rated at 125 kW

Refinery Flare Emergency Generator build date 1/3/12 serial #PE4024L082850 Mfg by John Deere rated at 40kW.

The permit was renewed on January 4, 2018.

The permit was modified on January 15, 2020 to incorporate Case by Case RACT 2 requirements, the EPA approved AMP for FL301, and to make administrative changes to Section B with the addition of a malfunction requirement and moving the inventory requirements of 135.3 and 135.4 from Section C to Section B for all Title V Permits issued by DEP.

The permit was amended on January 27, 2021 to incorporate the change of responsible official and update the permit contact title.

This permit was modified on January 4, 2022 to incorporate ERCs for boiler #5 and was administratively amended on the same date to incorporate the requirements of Plan Approval 42-004J for boiler #6.



\*\*\*\*\* End of Report \*\*\*\*\*

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