#### **Final-form Rulemaking**

#### Annex A

# TITLE 25. ENVIRONMENTAL PROTECTION PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION Subpart C. PROTECTION OF NATURAL RESOURCES ARTICLE III. AIR RESOURCES CHAPTER 121. GENERAL PROVISIONS

#### § 121.1. Definitions.

The definitions in section 3 of the act (35 P. S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

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CEMS—Continuous emissions monitoring system—[For purposes of Chapter 127, Subchapter E, all] All of the equipment that may be required to meet the data acquisition and availability requirements [of Chapter 127, Subchapter E to] established under the act or Clean Air Act to monitor, measure, calculate, sample, condition, analyze and provide a [permanent] record of emissions from an affected unit on a continuous basis.

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*Major NOx emitting facility*—A facility which emits or has the potential to emit NOx from the processes located at the site or on contiguous properties under the common control of the same person at a rate greater than one of the following:

- (i) Ten TPY in an ozone nonattainment area designated as extreme under section 182(e) and (f) of the Clean Air Act (42 U.S.C.A. § 7511a(e) and (f)).
- (ii) Twenty-five TPY in an ozone nonattainment area designated as severe under section 182(d) and (f) of the Clean Air Act.
- (iii) Fifty TPY in an area designated as serious under section 182(c) and (f) of the Clean Air Act.
- (iv) One hundred TPY in an area included in an ozone transport region established under section 184 of the Clean Air Act (42 U.S.C.A. § 7511c).
- (v) Twenty-five TPY and is located in Bucks, Chester, Delaware, Montgomery or Philadelphia County. THIS THRESHOLD DOES NOT APPLY TO §§ 129.96-129.100 (RELATING TO ADDITIONAL RACT REQUIREMENTS FOR MAJOR SOURCES OF NO<sub>x</sub> AND VOCs).

*Major VOC emitting facility*—A facility which emits or has the potential to emit VOCs from processes located at the site or on contiguous properties under the common control of the same person at a rate greater than one of the following:

- (i) Ten TPY in an ozone nonattainment area designated as extreme under section 182(e) of the Clean Air Act.
- (ii) Twenty-five TPY in an ozone nonattainment area designated as severe under section 182(d) of the Clean Air Act.
- (iii) Fifty TPY in an area included in an ozone transport region established under section 184 of the Clean Air Act.
- (iv) Twenty-five TPY and is located in Bucks, Chester, Delaware, Montgomery or Philadelphia County. **THIS THRESHOLD DOES NOT APPLY TO §§ 129.96-129.100.**

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*Process*—A method, reaction or operation in which materials are handled or whereby materials undergo physical change—that is, the size, shape, appearance, temperature, state or other physical property of the material is altered—or chemical change—that is, a substance with different chemical composition or properties is formed or created. The term includes all of the equipment, operations and facilities necessary for the completion of the transformation of the materials to produce a physical or chemical change. There may be several processes in series or parallel necessary to the manufacture of a product.

#### Process heater—

- (i) An enclosed device using controlled flame, that is not a boiler, the primary purpose of which is to transfer heat to a process material or to a heat transfer material for use in a process unit.
- (ii) The term does not include an enclosed device that meets either of the following circumstances:
  - (A) Has the primary purpose of generating steam.
- (B) In which the material being heated is in direct contact with the products of combustion, including:
- (I) A furnace.
  - (II) A kiln.
  - (III) An unfired waste heat recovery heater.
- (IV) A unit used for comfort heat, space heat or food preparation for onsite consumption.
  - (V) An autoclave.

*Project*—A physical change in or change in the method of operation of an existing facility, including a new emissions unit.

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Refinery component—A piece of equipment which has the potential to leak VOCs when tested in the manner specified in § 129.58 (relating to petroleum refineries—fugitive sources). These sources include, but are not limited to, pump seals, compressor seals, seal oil degassing vents, pipeline valves, pressure relief devices, process drains and open-ended pipes. Excluded from these sources are valves which are not externally regulated.

#### <u>REFINERY GAS—GAS PRODUCED AT A REFINERY WHICH PRODUCES</u> PETROLEUM PRODUCTS, INCLUDING GASOLINE, FROM REFINERY UNITS.

*Refinery unit*—A basic process operation, such as distillation hydrotreating, cracking or reforming of hydrocarbons which is made up of a set of refinery components.

## REGENERATIVE CYCLE COMBUSTION TURBINE—A STATIONARY COMBUSTION TURBINE WHICH RECOVERS HEAT FROM THE COMBUSTION TURBINE EXHAUST GASES TO PREHEAT THE INLET COMBUSTION AIR TO THE COMBUSTION TURBINE.

Regulated NSR pollutant—

- (i) NO<sub>x</sub> or VOCs.
- (ii) A pollutant for which the EPA has promulgated a NAAQS.
- (iii) A pollutant that is a constituent or precursor of a pollutant listed under subparagraph (i) or (ii), if the constituent or precursor pollutant may only be regulated under NSR as part of regulation of the pollutant listed under subparagraph (i) or (ii). Precursors identified by the Administrator of the EPA for purposes of NSR are the following:
  - (A) VOCs and NO<sub>x</sub> are precursors to ozone in all ozone nonattainment areas.
  - (B) SO<sub>2</sub> is a precursor to PM<sub>2.5</sub> in all PM<sub>2.5</sub> nonattainment areas.
- (C) Nitrogen oxides are presumed to be precursors to PM<sub>2.5</sub> in PM<sub>2.5</sub> nonattainment areas unless the Department demonstrates to the satisfaction of the Administrator of the EPA or the Administrator of the EPA determines that NO<sub>x</sub> emissions from a source in a specific area are not a significant contributor to that area's ambient PM<sub>2.5</sub> concentrations.
- (iv) PM<sub>2.5</sub> and PM-10 emissions, including gaseous emissions from a facility or activity that condense to form particulate matter at ambient temperatures, as specified in § 127.201(g) (relating to general requirements).

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Silicone insulation material—An insulating material applied to exterior metal surfaces of aerospace vehicles for protection from high temperatures caused by atmospheric friction or engine exhaust. These materials differ from ablative coatings in that they are not designed to be purposefully exposed to open flame or extreme heat and charred.

SIMPLE CYCLE COMBUSTION TURBINE—A STATIONARY COMBUSTION
TURBINE WHICH DOES NOT RECOVER HEAT FROM THE COMBUSTION
TURBINE EXHAUST GASES TO PREHEAT THE INLET COMBUSTION AIR TO
THE COMBUSTION TURBINE, OR WHICH DOES NOT RECOVER HEAT FROM
THE COMBUSTION TURBINE EXHAUST GASES FOR PURPOSES OTHER THAN
ENHANCING THE PERFORMANCE OF THE COMBUSTION TURBINE ITSELF.

*Single coat*—One film of coating applied to a metal surface.

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*Start-up*—For purposes of § § 129.301—129.310, the period of time, after initial construction, shutdown or cold shutdown, during which a glass melting furnace is heated to stable operating temperature by the primary furnace combustion system, and systems and instrumentation are brought to stabilization.

STATIONARY COMBUSTION TURBINE—EQUIPMENT, INCLUDING THE TURBINE, FUEL, AIR, LUBRICATION AND EXHAUST GAS SYSTEMS, CONTROL SYSTEMS (EXCEPT EMISSIONS CONTROL EQUIPMENT), HEAT RECOVERY SYSTEM, AND ANCILLARY COMPONENTS AND SUB-COMPONENTS COMPRISING A SIMPLE CYCLE COMBUSTION TURBINE, A REGENERATIVE OR RECUPERATIVE CYCLE COMBUSTION TURBINE, A COMBINED CYCLE COMBUSTION TURBINE AND A COMBINED HEAT AND POWER COMBUSTION TURBINE-BASED SYSTEM. THE EQUIPMENT IS NOT SELF-PROPELLED OR INTENDED TO BE PROPELLED WHILE PERFORMING ITS FUNCTION. THE EQUIPMENT MAY BE MOUNTED ON A VEHICLE FOR PORTABILITY.

Stationary internal combustion engine OR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINE—[For purposes of § 129.203 (relating to stationary internal combustion engines), an] An internal combustion engine [of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from one location to another and is not a mobile air contamination source] WHICH USES RECIPROCATING MOTION TO CONVERT HEAT ENERGY INTO MECHANICAL WORK AND WHICH IS NOT MOBILE. THE TERM DOES NOT INCLUDE THE FOLLOWING:

- (i) A COMBUSTION TURBINE.
- (ii) A NONROAD ENGINE AS DEFINED AT 40 CFR 1068.30 (EXCLUDING PARAGRAPH (2)(ii) OF THAT DEFINITION).
- (iii) AN ENGINE USED TO PROPEL A MOTOR VEHICLE, AN AIRCRAFT OR A VEHICLE USED SOLELY FOR COMPETITION.
- (iv) A PORTABLE TEMPORARY SOURCE SUCH AS AN AIR COMPRESSOR OR GENERATOR.

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#### **CHAPTER 129. STANDARDS FOR SOURCES**

#### ADDITIONAL RACT REQUIREMENTS FOR MAJOR SOURCES OF NOx AND VOCs

(*Editor's Note*: Sections 129.96—129.100 are new and printed in regular type to enhance readability.)

#### § 129.96. Applicability.

- (a) [This] THE NO<sub>x</sub> REQUIREMENTS OF THIS section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major NO<sub>x</sub> emitting facility [or] 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[sor both,] that [was] 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.
- (b) [This] THE NO<sub>x</sub> REQUIREMENTS OF THIS section and §§ 129.97—129.100 apply Statewide to the owner and operator of a NO<sub>x</sub> emitting facility [9F] AND THE VOC

  REQUIREMENTS OF THIS SECTION AND §§ 129.97—129.100 APPLY STATEWIDE

  TO THE OWNER AND OPERATOR OF A VOC emitting facility [-or both\_-] 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 NO<sub>x</sub> 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.
- (c) THIS SECTION AND §§ 129.97—129.100 DO NOT APPLY TO THE OWNER AND OPERATOR OF A NO<sub>x</sub> AIR CONTAMINATION SOURCE LOCATED AT A MAJOR NO<sub>x</sub> EMITTING FACILITY THAT HAS THE POTENTIAL TO EMIT LESS THAN 1 TPY OF NO<sub>x</sub> OR A VOC AIR CONTAMINATION SOURCE LOCATED AT A MAJOR VOC EMITTING FACILITY THAT HAS THE POTENTIAL TO EMIT LESS THAN 1 TPY OF VOC.
- (d) THIS SECTION AND §§ 129.97—129.100 DO NOT APPLY TO THE OWNER AND OPERATOR OF A FACILITY WHICH IS NOT A MAJOR NO<sub>x</sub> EMITTING FACILITY OR A MAJOR VOC EMITTING FACILITY ON OR BEFORE JANUARY 1, 2017.
- § 129.97. Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.
- (a) The owner and operator of a source listed in one or more of subsections (b)—(h) located at a major  $NO_x$  emitting facility or major VOC emitting facility [ $\frac{1}{3}$  or  $\frac{1}{3}$  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)[ $\frac{1}{2}$ ]:

- (1) **JANUARY 1, 2017,** for a source subject to § 129.96(a).
- (2) <u>JANUARY 1, 2017</u>, or 1 year after the date the source meets the definition of a major  $NO_x$  emitting facility or major VOC emitting facility, whichever is later, for a source subject to § 129.96(b).
- (b) 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 [source of specific states o
- (1) [Except as specified in paragraph (2), the] THE presumptive RACT requirement for a combustion unit with a rated heat input equal to or greater than 20 million Btu/hour and less than 50 million Btu/hour, which is the performance of [an annual adjustment to or] A BIENNIAL tune-up [of the combustion process] CONDUCTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN 40 CFR 63.11223. The [adjustment] BIENNIAL TUNE—UP must include, at a minimum, the following:
- (i) Inspection[<u>-adjustment</u>,] <u>AND</u> cleaning or replacement of fuel-burning equipment, including the burners and [<u>moving parts</u>] <u>COMPONENTS</u>, <u>AS</u> necessary, for proper operation as specified by the manufacturer.
- (ii) Inspection [and adjustment] of the flame pattern [or characteristics] AND ADJUSTMENT OF THE BURNER, AS necessary, TO OPTIMIZE THE FLAME PATTERN IN ORDER to minimize total emissions of NO<sub>x</sub> and, to the extent possible, emissions of CO.
- (iii) Inspection and adjustment, **AS NECESSARY**, of the air-to-fuel ratio control system [necessary] to ensure proper calibration and operation as specified by the manufacturer.
- (2) [The presumptive RACT requirement for an oil-fired, gas-fired or combination oil-fired and gas-fired combustion unit with a rated heat input equal to or greater than 20 million Btu/hour and less than 50 million Btu/hour, which is the performance of all adjustments consistent with the EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers (EPA-340/1-83-023)," September 1983 or as amended.] THE OWNER OR OPERATOR OF A COMBUSTION UNIT WITH AN OXYGEN TRIM SYSTEM THAT MAINTAINS AN OPTIMUM AIR-TO-FUEL RATIO THAT WOULD OTHERWISE BE SUBJECT TO A BIENNIAL TUNE-UP SHALL CONDUCT A TUNE-UP OF THE BOILER ONE TIME IN EACH 5-YEAR CALENDAR PERIOD. THE TUNE-UP MUST INCLUDE, AT A MINIMUM, THE FOLLOWING:
- (i) INSPECTION AND CLEANING OR REPLACEMENT OF FUEL-BURNING EQUIPMENT, INCLUDING THE BURNERS AND COMPONENTS, AS NECESSARY, FOR PROPER OPERATION AS SPECIFIED BY THE MANUFACTURER.
- (ii) INSPECTION OF THE FLAME PATTERN AND ADJUSTMENT OF THE BURNER, AS NECESSARY, TO OPTIMIZE THE FLAME PATTERN IN ORDER TO

### MINIMIZE TOTAL EMISSIONS OF NO<sub>X</sub> AND, TO THE EXTENT POSSIBLE, EMISSIONS OF CO.

### (iii) INSPECTION AND ADJUSTMENT, AS NECESSARY, OF THE AIR-TO-FUEL RATIO CONTROL SYSTEM TO ENSURE PROPER CALIBRATION AND OPERATION AS SPECIFIED BY THE MANUFACTURER.

- (3) The applicable recordkeeping requirements of § 129.100(d) [or ], (e) OR (f) (relating to compliance demonstration and recordkeeping requirements).
- (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 [, or both,] subject to § 129.96 shall [comply with the following presumptive RACT requirement, which is the installation, maintenance and operation of INSTALL, MAINTAIN AND OPERATE the source in accordance with the manufacturer's specifications and WITH good [engineering] 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.

- (3) A boiler or other combustion source with an individual rated gross heat input less than 20 million Btu/hour.
  - [(2)](4) A combustion turbine with a rated output less than 1,000 bhp.
  - [(3)](5) [An] A STATIONARY internal combustion engine rated at less than 500 bhp (gross).
- [<u>4</u>](<u>6</u>) An incinerator, thermal oxidizer or catalytic oxidizer used primarily for air pollution control.
- [(5)](7) A [unit of] fuel-burning [equipment, a gas turbine or an internal combustion engine] UNIT with an annual capacity factor of less than 5%.
- (i) FOR A COMBUSTION UNIT, THE ANNUAL CAPACITY FACTOR IS THE RATIO OF THE UNIT'S HEAT INPUT (IN MILLION BTU OR EQUIVALENT UNITS OF MEASURE) TO THE UNIT'S MAXIMUM RATED HOURLY HEAT INPUT RATE (IN MILLION BTU/HOUR OR EQUIVALENT UNITS OF MEASURE) MULTIPLIED BY 8,760 HOURS DURING A PERIOD OF 12 CONSECUTIVE CALENDAR MONTHS.
- (ii) FOR AN ELECTRIC GENERATING UNIT, THE ANNUAL CAPACITY
  FACTOR IS THE RATIO OF THE UNIT'S ACTUAL ELECTRIC OUTPUT
  (EXPRESSED IN MWE/HR) TO THE UNIT'S NAMEPLATE CAPACITY (OR
  MAXIMUM OBSERVED HOURLY GROSS LOAD (IN MWE/HR) IF GREATER THAN
  THE NAMEPLATE CAPACITY) MULTIPLIED BY 8,760 HOURS DURING A PERIOD
  OF 12 CONSECUTIVE CALENDAR MONTHS.

# (iii) FOR ANY OTHER UNIT, THE ANNUAL CAPACITY FACTOR IS THE RATIO OF THE UNIT'S ACTUAL OPERATING LEVEL TO THE UNIT'S POTENTIAL OPERATING LEVEL DURING A PERIOD OF 12 CONSECUTIVE CALENDAR MONTHS.

[(6)](8) An emergency standby engine operating less than 500 hours in a 12-month rolling period.

- (d) [The] 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 [comply with the presumptive RACT requirement of] INSTALL, MAINTAIN AND OPERATE THE SOURCE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND WITH good [engineering] OPERATING practices for the control of the VOC emissions from the combustion unit or other combustion source.
- (e) The owner and operator of a municipal solid waste landfill subject to § 129.96 shall comply with the following applicable presumptive RACT requirement:
- (1) For a municipal solid waste landfill constructed on or before May 30, 1991, emission guidelines and compliance times in 40 CFR Part 60, Subpart Cc (relating to emission guidelines and compliance times for municipal solid waste landfills), which are adopted and incorporated by reference in § 122.3 (relating to adoption of standards), and applicable Federal or state plans in 40 CFR Part 62 (relating to approval and promulgation of state plans for designated facilities and pollutants).
- (2) For a municipal solid waste landfill constructed after May 30, 1991, new source performance standards in 40 CFR Part 60, Subpart WWW (relating to standards of performance for municipal solid waste landfills), which are adopted and incorporated by reference in § 122.3.
- (f) The owner and operator of a municipal waste combustor subject to § 129.96 shall comply with the [following applicable] presumptive RACT requirement[:] OF 180 PPMVD NO<sub>x</sub> @ 7% OXYGEN.
- [(1) For a municipal waste combustor constructed on or before September 20, 1994, the emission guidelines and compliance times in 40 CFR Part 60, Subpart Cb (relating to emissions guidelines and compliance times for large municipal waste combustors that are constructed on or before September 20, 1994), which are adopted and incorporated by reference in § 122.3, and applicable Federal or state plans in 40 CFR Part 62.
- (2) For a municipal waste combustor constructed after September 20, 1994, or for a municipal waste combustor that commenced a modification or reconstruction after June 19, 1996, the new source performance standards in 40 CFR Part 60, Subpart Eb (relating to standards of performance for large municipal waste combustors for which construction is commenced after September 20, 1994 or for which modification or reconstruction is commenced after June 19, 1996), which are adopted and incorporated by reference in § 122.3.

- (g) [The] EXCEPT AS SPECIFIED UNDER SUBSECTION (c), THE owner and operator of a NO<sub>x</sub> air contamination source SPECIFIED in this subsection, WHICH IS located at a major NO<sub>x</sub> emitting facility or a VOC air contamination source SPECIFIED in this subsection, WHICH IS located at a major VOC emitting facility [\_or both\_] subject to § 129.96 may not cause, allow or permit NO<sub>x</sub> or VOCs [\_or both\_] to be emitted from the air contamination source [for which the source is major] in excess of the applicable PRESUMPTIVE RACT emission limitation:
  - (1) A combustion unit or process heater:
- (i) For a natural gas-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, [0.08] 0.10 lb NO<sub>x</sub>/million Btu heat input.
- (ii) For a distillate oil-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.12 lb NO<sub>x</sub>/million Btu heat input.
- (iii) For a residual oil-fired **OR OTHER LIQUID FUEL-FIRED** combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.20 lb NO<sub>x</sub>/million Btu heat input.
- (iv) For a refinery gas-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.25 lb NO<sub>x</sub>/million Btu heat input.
- (v) For a coal-fired combustion unit with a rated heat input equal to or greater than 50 million Btu/hour and less than 250 million Btu/hour, 0.45 lb NO<sub>x</sub>/million Btu heat input.
- (vi) For a coal-fired combustion unit with a rated heat input equal to or greater than 250 million Btu/hour that is:
  - (A) A circulating fluidized bed combustion unit, [0.20] 0.16 lb NO<sub>x</sub>/million Btu heat input.
  - (B) A tangentially fired combustion unit, 0.35 lb NO<sub>x</sub>/million Btu heat input.
- (C) [Another] ANY OTHER TYPE OF COAL-FIRED combustion unit, 0.40 lb NO<sub>x</sub>/million Btu heat input.
- (vii) FOR ANY OTHER TYPE OF SOLID FUEL-FIRED COMBUSTION UNIT WITH A RATED HEAT INPUT EQUAL TO OR GREATER THAN 50 MILLION BTU/HOUR, 0.25 LB NO<sub>x</sub>/MILLION BTU HEAT INPUT.

(viii) FOR A COAL-FIRED COMBUSTION UNIT WITH A SELECTIVE CATALYTIC REDUCTION SYSTEM OPERATING WITH AN INLET TEMPERATURE EQUAL TO OR GREATER THAN 600°F, 0.12 LB NO<sub>\*</sub>/MILLION BTU HEAT INPUT. COMPLIANCE WITH THIS EMISSION LIMIT IS ALSO REQUIRED WHEN BY-PASSING THE SELECTIVE CATALYTIC REDUCTION SYSTEM.

# (ix) FOR A COAL-FIRED COMBUSTION UNIT WITH A SELECTIVE NON-CATALYTIC REDUCTION SYSTEM, THE SELECTIVE NON-CATALYTIC REDUCTION SYSTEM SHALL BE OPERATED WITH THE INJECTION OF REAGENTS INCLUDING AMMONIA OR OTHER NO<sub>x</sub>-REDUCING AGENTS, WHEN THE TEMPERATURE AT THE AREA OF THE REAGENT INJECTION IS EQUAL TO OR GREATER THAN 1600°F.

- (2) A combustion turbine:
- (i) For a combined cycle or combined heat and power combustion turbine with a rated output equal to or greater than 1,000 bhp and less than 180 MW when firing:
  - (A) Natural gas or a noncommercial gaseous fuel, 42 ppmvd NO<sub>x</sub> @ 15% oxygen.
  - (B) Fuel oil, [75] 96 ppmvd NO<sub>x</sub> @ 15% oxygen.
- (C) Natural gas or a noncommercial gaseous fuel, [2] 5 ppmvd VOC (as propane) @ 15% oxygen.
  - (D) Fuel oil, [2] 9 ppmvd VOC (as propane) @ 15% oxygen.
- (ii) For a combined cycle or combined heat and power combustion turbine with a rated output equal to or greater than 180 MW when firing:
  - (A) Natural gas or a noncommercial gaseous fuel, 4 ppmvd NO<sub>x</sub> @ 15% oxygen.
  - (B) Fuel oil, 8 ppmvd NO<sub>x</sub> @ 15% oxygen.
- (C) Natural gas or a noncommercial gaseous fuel, 2 ppmvd VOC (as propane) @ 15% oxygen.
  - (D) Fuel oil, 2 ppmvd VOC (as propane) @ 15% oxygen.
- (iii) FOR A SIMPLE CYCLE OR REGENERATIVE CYCLE COMBUSTION
  TURBINE WITH A RATED OUTPUT EQUAL TO OR GREATER THAN 1,000 BHP
  AND LESS THAN 6,000 BHP WHEN FIRING:
- (A) NATURAL GAS OR A NONCOMMERCIAL GASEOUS FUEL, 150 PPMVD NOx @ 15% OXYGEN.
  - (B) FUEL OIL, 150 PPMVD NO<sub>X</sub> @ 15% OXYGEN.
- (C) NATURAL GAS OR A NONCOMMERCIAL GASEOUS FUEL, 9 PPMVD VOC (AS PROPANE) @ 15% OXYGEN.
  - (D) FUEL OIL, 9 PPMVD VOC (AS PROPANE) @ 15% OXYGEN.

- [ $\frac{\text{(ii)}}{\text{(iv)}}$ ] For a simple cycle or regenerative cycle combustion turbine with a rated output equal to or greater than [ $\frac{1,000}{\text{(i,000)}}$ ] bhp when firing:
  - (A) Natural gas or a noncommercial gaseous fuel, 42 ppmvd NO<sub>x</sub> @ 15% oxygen.
  - (B) Fuel oil, [<u>75</u>] <u>96</u> ppmvd NO<sub>x</sub> @ 15% oxygen.
- (C) Natural gas or a noncommercial gaseous fuel, 9 ppmvd VOC (as propane) @ 15% oxygen.
  - (D) Fuel oil, 9 ppmvd VOC (as propane) @ 15% oxygen.
  - (3) A stationary internal combustion engine:
- (i) For a lean burn stationary internal combustion engine with a rating equal to or greater than 500 bhp fired with:
  - (A) Natural gas **OR A NONCOMMERCIAL GASEOUS FUEL**, 3.0 grams NO<sub>x</sub>/bhp-hr.
- (B) Natural gas **OR A NONCOMMERCIAL GASEOUS FUEL**, liquid fuel or dual-fuel, **[9.4] 1.0** gram VOC/bhp-hr **EXCLUDING FORMALDEHYDE**.
- (ii) For a stationary internal combustion engine with a rating equal to or greater than 500 bhp fired with liquid fuel or dual-fuel, 8.0 grams NO<sub>x</sub>/bhp-hr.
- (iii) For a rich burn stationary internal combustion engine with a rating equal to or greater than 500 bhp fired with:
  - (A) Natural gas **OR A NONCOMMERCIAL GASEOUS FUEL**, 2.0 grams NO<sub>x</sub>/bhp-hr.
  - (B) Natural gas **OR A NONCOMMERCIAL GASEOUS FUEL**, 1.0 gram VOC/bhp-hr.
  - (4) A unit firing multiple fuels [simultaneously]:
- (i) The applicable RACT multiple fuel emission limit shall be determined on a total heat input fuel weighted basis using the following equation:

$$\mathbf{E}_{\mathbf{HIweighted}} = \frac{\sum_{i=1}^{n} \mathbf{EiHIi}}{\sum_{i=1}^{n} \mathbf{HIi}}$$

Where:

E<sub>HIweighted</sub> = The heat input fuel weighted multiple fuel emission rate or emission limitation for the compliance period, expressed in units of measure consistent with the units of measure for the emission limitation.

- $E_i$  = The emission rate or emission limit for fuel i during the compliance period, expressed in units of measure consistent with the units of measure for the emission limitation.
  - $HI_i$  = The total heat input for fuel i during the compliance period.
  - n =The number of different fuels used during the compliance period.
- (ii) A fuel representing less than 1% of the unit's annual fuel consumption on a heat input basis is excluded when determining the applicable RACT multiple fuel emission limit calculated in accordance with subparagraph (i).
- (iii) The determination in subparagraph (i) does not apply to a stationary internal combustion engine that is subject to the RACT emission limits in paragraph (3).
- (h) The owner and operator of a Portland cement kiln subject to § 129.96 shall comply with the following applicable presumptive RACT emission limitation:
- (1) 3.88 pounds of NO<sub>x</sub> per ton of clinker produced for a long wet-process cement kiln as defined in § 145.142 (relating to definitions).
- (2) 3.44 pounds of  $NO_x$  per ton of clinker produced for a long dry-process cement kiln as defined in § 145.142.
  - (3) 2.36 pounds of NO<sub>x</sub> per ton of clinker produced for:
  - (i) A preheater cement kiln as defined in § 145.142.
  - (ii) A precalciner cement kiln as defined in § 145.142.
- (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 \_\_\_\_\_\_, (Editor's Note: The blank refers to the effective date of adoption of this final-form rulemaking.) 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 [except to the extent the RACT] UNLESS THE permit contains more stringent requirements or emission limitations, or both.
- (j) The requirements and emission limitations of this section [do not] supersede the requirements and emission limitations of §§ 129.201—129.205, 145.111—145.113 and 145.141—145.146 (relating to additional NO<sub>x</sub> requirements; emissions of NO<sub>x</sub> from stationary internal combustion engines; and emissions of NO<sub>x</sub> from cement manufacturing) [except to the extent this section contains more stringent] UNLESS THE requirements or emission limitations [for the owner or operator of a major NO<sub>x</sub> emitting facility subject to § 129.96 to control, reduce or minimize NO<sub>x</sub> emissions from an air contamination source subject to ] OF §§ 129.201—129.205, §§ 145.111—145.113 or §§ 145.141—145.146 ARE MORE STRINGENT.

- (k) The owner or operator of a major  $NO_x$  emitting facility or a major VOC emitting facility [ $_{\overline{2}}$  or both,] 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:
- (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) \_\_\_\_\_, (*Editor's Note*: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) for a source subject to § 129.96(a).
- (ii) \_\_\_\_\_, (*Editor's Note*: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) or 6 months after the date that the source meets the definition of a major  $NO_x$  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 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.
- (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.

- $\S$  129.98. Facility-wide or system-wide NO<sub>x</sub> emissions averaging [RACT operating permit modification] PLAN general requirements.
- (a) The owner or operator of a major NO<sub>x</sub> emitting facility subject to § 129.96 (relating to applicability) that includes [an] AT LEAST ONE air contamination source subject to a [NO<sub>x</sub> RACT requirement or] NO<sub>x</sub> RACT emission limitation in § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) that cannot meet the applicable [NO<sub>x</sub> RACT requirement or] NO<sub>x</sub> RACT emission limitation may elect to meet the applicable [NO<sub>x</sub> RACT requirement or] NO<sub>x</sub> RACT emission limitation in § 129.97 by averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average. System-wide emissions averaging must be among sources under common control of the same owner or operator WITHIN THE SAME OZONE NONATTAINMENT AREA in this Commonwealth.
- (b) The owner or operator of each facility that elects to comply with subsection (a) shall submit A WRITTEN NO<sub>x</sub> EMISSIONS AVERAGING PLAN TO THE DEPARTMENT OR APPROPRIATE APPROVED LOCAL AIR POLLUTION CONTROL AGENCY AS PART OF AN APPLICATION FOR an operating permit modification OR A PLAN APPROVAL, IF OTHERWISE REQUIRED [that incorporates]. THE APPLICATION INCORPORATING the requirements of this section [for averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average to the Department or appropriate approved local air pollution control agency] SHALL BE SUBMITTED by the applicable date as follows:
- (1) \_\_\_\_\_\_, (Editor's Note: The blank refers to the date 6 months after the effective date of adoption of this final–form rulemaking.) for a source subject to § 129.96(a).

  (2) \_\_\_\_\_, (Editor's Note: The blank refers to the date 6 months after the effective date of adoption of this final–form rulemaking.) 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).

- (c) Each NO<sub>x</sub> [emitting] AIR CONTAMINATION source included in the APPLICATION FOR AN operating permit modification OR A PLAN APPROVAL, IF OTHERWISE REQUIRED, for averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average submitted under subsection (b) must be an air contamination source subject to a NO<sub>x</sub> RACT emission limitation in § 129.97.
- (d) The <u>APPLICATION FOR THE</u> operating permit modification <u>OR THE PLAN</u> <u>APPROVAL, IF OTHERWISE REQUIRED</u>, for averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average submitted under subsection (b) must demonstrate that the aggregate NO<sub>x</sub> emissions emitted by the air contamination sources included in the facility-wide or system-wide NO<sub>x</sub> emissions averaging [<u>RACT operating permit modification</u>] <u>PLAN</u> using a 30-day rolling average are not greater than [<u>90% of the sum of</u>] the NO<sub>x</sub> emissions that would be emitted by the group of included sources if each source complied with the applicable [<u>NO<sub>x</sub>-RACT requirement or</u>] NO<sub>x</sub> RACT emission limitation in § 129.97 on a source-specific basis.

(e) The owner or operator shall calculate the alternative facility-wide or system-wide NO<sub>x</sub> RACT emissions limitation using a 30-day rolling average for the air contamination sources included in the <u>APPLICATION FOR THE</u> operating permit modification <u>OR PLAN</u> <u>APPROVAL, IF OTHERWISE REQUIRED</u>, submitted under subsection (b) by using the following equation to sum the emissions for all of the sources included in the [operating permit modification] NO<sub>x</sub> EMISSIONS AVERAGING PLAN:

$$\left[\left|\sum_{i=1}^{n} Ri_{\text{actual}} * H_{i}\right| \le \left|\sum_{i=1}^{n} Ri_{\text{allowable}} * H_{i}\right| * 0.9\right]$$

$$\left[\sum_{i=1}^{n} \operatorname{Ei}_{\operatorname{actual}}\right] \leq \left[\sum_{i=1}^{n} \operatorname{Ei}_{\operatorname{allowable}}\right]$$

[where] WHERE:

Riactual = The daily actual NO<sub>x</sub> emission rate for air contamination source i, lb/mmbtu, using a 30-day rolling average.

 $Ri_{allowable}$  = The applicable NO<sub>x</sub> emission rate limitation for air contamination source i, lb/mmbtu, specified in § 129.97.

H<sub>i</sub> = The daily actual heat input for air contamination source i, lb/mmbtu, using a 30-day rolling average.]

Eiactual = THE ACTUAL NO<sub>x</sub> MASS EMISSIONS, INCLUDING EMISSIONS DURING START-UPS, SHUTDOWNS AND MALFUNCTIONS, FOR AIR CONTAMINATION SOURCE i ON A 30-DAY ROLLING BASIS.

Eiallowable = THE ALLOWABLE NO<sub>x</sub> MASS EMISSIONS COMPUTED USING THE ALLOWABLE EMISSION RATE LIMITATIONS FOR AIR CONTAMINATION SOURCE i ON A 30-DAY ROLLING BASIS SPECIFIED IN § 129.97. IF AN AIR CONTAMINATION SOURCE INCLUDED IN AN AVERAGING PLAN IS SUBJECT TO A NUMERICAL EMISSION RATE LIMIT THAT IS MORE STRINGENT THAN THE APPLICABLE ALLOWABLE EMISSION RATE LIMITATION SET FORTH IN § 129.97, THEN THE NUMERICAL EMISSION RATE LIMIT SHALL BE USED FOR THE CALCULATION OF THE ALLOWABLE NO<sub>x</sub> MASS EMISSIONS.

n = The number of air contamination sources included in the [operating permit modification] NO<sub>x</sub> EMISSIONS AVERAGING PLAN.

[0.9 = The 90% limit specified under subsection (d).]

(f) The <u>APPLICATION FOR THE</u> operating permit modification <u>OR A PLAN</u>

<u>APPROVAL, IF OTHERWISE REQUIRED</u>, specified in subsections (b)—(e) may include facility-wide or system-wide [<u>averaging</u>] <u>NO<sub>x</sub></u> emissions <u>AVERAGING</u> using a 30-day rolling average only for NO<sub>x</sub> emitting sources or NO<sub>x</sub> emitting facilities that are owned or operated [<u>-or</u> <u>both</u>-] by the applicant.

- (g) The <u>APPLICATION FOR THE</u> operating permit modification <u>OR A PLAN</u> <u>APPROVAL, IF OTHERWISE REQUIRED</u>, specified in subsections (b)—(f) must include the following information:
- (1) Identification of each air contamination source included in the  $NO_x$  emissions averaging [RACT operating permit modification] PLAN.
  - (2) Each air contamination source's applicable emission limitation in § 129.97.
- (3) Methods for demonstrating compliance and recordkeeping and reporting requirements in accordance with § 129.100 (relating to compliance demonstration and recordkeeping requirements) for each source included in the NO<sub>x</sub> emissions averaging [RACT operating permit modification] PLAN submitted under subsection (b).
- (h) An air contamination source or facility [ $\frac{1}{2}$  or both,] included in the facility-wide or systemwide NO<sub>x</sub> emissions averaging [ $\frac{RACT \text{ operating permit modification}}{RACT \text{ operating permit modification}}$ ] PLAN submitted in accordance with subsections (b)—(g) may be included in only one facility-wide or system-wide NO<sub>x</sub> emissions averaging [ $\frac{RACT \text{ proposal}}{RACT \text{ proposal}}$ ] PLAN.
- (i) The Department or appropriate approved local air pollution control agency will issue a modification to the operating permit **OR A PLAN APPROVAL AUTHORIZING THE NO**<sub>x</sub> **EMISSIONS AVERAGING PLAN**.
- (j) The owner or operator of an air contamination source or facility [ $\frac{1}{2}$  or both,] included in the facility-wide or system-wide NO<sub>x</sub> emissions averaging [ $\frac{RACT}{RACT}$  operating permit modification] PLAN submitted in accordance with subsections (b)—(h) shall submit the reports and records specified in subsection (g)(3) to the Department or appropriate approved local air pollution control agency on the schedule specified in subsection (g)(3) to demonstrate compliance with § 129.100.
- (k) The owner or operator of an air contamination source or facility [-or both] included in a facility-wide or system-wide NO<sub>x</sub> emissions averaging [RACT operating permit modification] PLAN submitted in accordance with subsections (b)—(h) that achieves emission reductions in accordance with other emission limitations required under the act or the Clean Air Act, or regulations adopted under the act or the Clean Air Act, that are not NO<sub>x</sub> RACT emission limitations may not substitute those emission reductions for the emission reductions required by the facility-wide or system-wide NO<sub>x</sub> emissions averaging [RACT operating permit modification] PLAN submitted to the Department or appropriate approved local air pollution control agency under subsection (b).
- (1) The owner or operator of an air contamination source subject to a NO<sub>x</sub> RACT emission limitation in § 129.97 that is not included in a facility-wide or system-wide NO<sub>x</sub> emissions averaging [RACT operating permit modification] PLAN submitted under subsection (b) shall operate the source in compliance with the applicable NO<sub>x</sub> RACT emission limitation in § 129.97.
- (m) The owner and operator of  $[\underline{an}]$  <u>THE</u> air contamination  $[\underline{source}]$  <u>SOURCES</u> included in a facility-wide or system-wide NO<sub>x</sub> emissions averaging  $[\underline{RACT}$  operating permit modification]

<u>PLAN</u> submitted under subsection (b) shall be liable for a violation of [<u>the operating permit modification or this section at that</u>] <u>AN APPLICABLE NO<sub>x</sub> RACT EMISSION</u>
<u>LIMITATION AT EACH</u> source [<u>or other source</u>] <u>INCLUDED</u> in the [<u>operating permit modification</u>] <u>NO<sub>x</sub> EMISSIONS AVERAGING PLAN</u>.

#### § 129.99. Alternative RACT proposal and petition for alternative compliance schedule.

- (a) The owner or operator of an air contamination source subject to § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) located at a major NO<sub>x</sub> emitting facility or major VOC emitting facility [\$\frac{\text{or both}\_{\bar{1}}}{\text{or both}\_{\bar{1}}}\$] subject to § 129.96 (relating to applicability) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation of § 129.97 [\$\frac{\text{or participate in either a facility-wide or system-wide NO<sub>x</sub> emissions averaging RACT operating permit modification under § 129.98 (relating to facility-wide or system-wide NO<sub>x</sub> emissions averaging RACT operating permit modification general requirements)] may propose an alternative [\$\frac{\text{NO}\_x \text{ RACT emission limitation or VOC}}{\text{or both}\_{\bar{1}}}\$] in accordance with subsection (d).
- (b) The owner or operator of a NO<sub>x</sub> air contamination source with a potential emission rate equal to or greater than 5.0 tons of NO<sub>x</sub> per year that is not subject to § 129.97 or §§ 129.201—129.205 (relating to additional NO<sub>x</sub> requirements) located at a major NO<sub>x</sub> emitting facility subject to § 129.96 shall propose a NO<sub>x</sub> 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).
- (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) \_\_\_\_\_, (Editor's Note: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) for a source subject to § 129.96(a).
- (ii) \_\_\_\_\_, (*Editor's Note*: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) or 6 months after the date that the source meets the definition of a major  $NO_x$  emitting facility or major VOC emitting facility [ $\frac{1}{2}$  or both,] 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  $NO_x$  emitting facility or major VOC emitting facility [ $\underline{\mathbf{z}}$  or both].

- (3) Include in the RACT proposal the proposed alternative NO<sub>x</sub> RACT <u>REQUIREMENT OR</u> <u>RACT</u> emission limitation or VOC RACT <u>REQUIREMENT OR RACT</u> 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) <u>JANUARY 1, 2017</u>, 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 [ $\frac{}{}$ , or both], 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).

- (f) The proposed alternative RACT <u>REQUIREMENT OR RACT</u> 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 <u>REQUIREMENT OR RACT</u> 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 \_\_\_\_\_\_, (Editor's Note: The blank refers to the effective date of adoption of this final-form rulemaking.) 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 <u>REQUIREMENT OR RACT</u> 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 [<u>notification</u>] <u>NOTIFICATIONS (INCLUDING NEWSPAPER NOTICES)</u> required for [<u>EPA</u>] <u>THE</u> SIP [<u>approval</u>] <u>SUBMITTAL</u>.
- (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) \_\_\_\_\_, (*Editor's Note*: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) for a source subject to § 129.96(a).
- (ii) \_\_\_\_\_, (*Editor's Note*: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) or 6 months after the date that the source meets the definition of a major  $NO_x$  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.
- (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 [(h)] (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 \_\_\_\_\_\_, (Editor's Note: The blank refers to the effective date of adoption of this final-form rulemaking.) 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.
- (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.

#### § 129.100. Compliance demonstration and recordkeeping requirements.

- (a) Except as provided in subsection (c), the owner and operator of an air contamination source subject to a NO<sub>x</sub> **REQUIREMENT OR RACT** emission limitation or VOC **REQUIREMENT OR RACT** emission limitation, or both, listed in § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation by performing the following monitoring or testing procedures:
- (1) For an air contamination source with a CEMS, monitoring and testing in accordance with the requirements of Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) using a 30-day rolling average, **EXCEPT MUNICIPAL WASTE COMBUSTORS**.

- (i) A 30-DAY ROLLING AVERAGE EMISSION RATE FOR AN AIR CONTAMINATION SOURCE THAT IS A COMBUSTION UNIT SHALL BE EXPRESSED IN POUNDS PER MILLION BTU AND CALCULATED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
- (A) SUM THE TOTAL POUNDS OF POLLUTANT EMITTED FROM THE COMBUSTION UNIT FOR THE CURRENT OPERATING DAY AND THE PREVIOUS 29 OPERATING DAYS.
- (B) SUM THE TOTAL HEAT INPUT TO THE COMBUSTION UNIT IN MILLION BTU FOR THE CURRENT OPERATING DAY AND THE PREVIOUS 29 OPERATING DAYS.
- (C) DIVIDE THE TOTAL NUMBER OF POUNDS OF POLLUTANT EMITTED BY THE COMBUSTION UNIT FOR THE 30 OPERATING DAYS BY THE TOTAL HEAT INPUT TO THE COMBUSTION UNIT FOR THE 30 OPERATING DAYS.
- (ii) A 30-DAY ROLLING AVERAGE EMISSION RATE FOR EACH APPLICABLE RACT EMISSION LIMITATION SHALL BE CALCULATED FOR AN AFFECTED AIR CONTAMINATION SOURCE FOR EACH CONSECUTIVE OPERATING DAY.
- (iii) EACH 30-DAY ROLLING AVERAGE EMISSION RATE FOR AN AFFECTED AIR CONTAMINATION SOURCE SHALL INCLUDE THE EMISSIONS THAT OCCUR DURING THE ENTIRE OPERATING DAY, INCLUDING EMISSIONS FROM START-UPS, SHUTDOWNS AND MALFUNCTIONS.
- (2) <u>FOR A PORTLAND CEMENT KILN WITH A CEMS, MONITORING OF</u> CLINKER PRODUCTION RATES IN ACCORDANCE WITH 40 CFR 63.1350(d).
- (3) FOR A MUNICIPAL WASTE COMBUSTOR WITH A CEMS, MONITORING AND TESTING IN ACCORDANCE WITH THE REQUIREMENTS IN CHAPTER 139, SUBCHAPTER C, USING A DAILY AVERAGE.
- <u>(4)</u> For an air contamination source without a CEMS, monitoring and testing in accordance with a Department-approved emissions source test that meets the requirements of Chapter 139, Subchapter A (relating to sampling and testing methods and procedures). <u>THE SOURCE TEST SHALL BE CONDUCTED ONE TIME IN EACH 5-YEAR CALENDAR PERIOD.</u>
- (b) [The] EXCEPT AS PROVIDED IN §§ 129.97(k) AND 129.99(i), 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) <u>JANUARY 1, 2017</u>, or 1 year after the date that the source meets the definition of a major  $NO_x$  emitting facility or major VOC emitting facility, [<u>or both</u>] whichever is later, for a source subject to § 129.96(b).
- (c) An owner or operator of an air contamination source subject to this section, §§ 129.96 and 129.97 and § 129.98 (relating to facility-wide or system-wide NO<sub>x</sub> emissions averaging [RACT operating permit modification] PLAN general requirements) may request a waiver from the requirement to demonstrate compliance with the applicable emission limitation listed in § 129.97 if the following requirements are met:
- (1) The request for a waiver is submitted, in writing, to the Department not later than:

  (i) \_\_\_\_\_\_\_, (Editor's Note: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) for a source subject to § 129.96(a).

  (ii) \_\_\_\_\_\_, (Editor's Note: The blank refers to the date 6 months after the effective date of adoption of this final-form rulemaking.) 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, [or both] whichever is later, for a source subject to § 129.96(b).

  (2) The request for a waiver demonstrates that a Department-approved emissions source test was performed in accordance with the requirements of Chapter 139, Subchapter A, on or after:

  (i) \_\_\_\_\_, (Editor's Note: The blank refers to the date within 12 months prior to the effective date of adoption of this final-form rulemaking.) for a source subject to § 129.96(a).

  (ii) \_\_\_\_\_, (Editor's Note: The blank refers to the date within 12 months prior to the effective date of adoption of this final-form rulemaking.) or within 12 months prior to the date that the source meets the definition of a major NO<sub>x</sub> emitting facility or major VOC emitting
- (3) The request for a waiver demonstrates to the satisfaction of the Department that the test results show that the source's rate of emissions is in compliance with the source's applicable  $NO_x$  emission limitation or VOC emission limitation [ $\frac{1}{3}$  or both,].
  - (4) The Department approves, in writing, the request for a waiver.

facility, [or both.] whichever is later, for a source subject to § 129.96(b).

- (d) The owner and operator of an air contamination source subject to this section, §§ 129.96—129.98 and § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule) shall keep records to demonstrate compliance with §§ 129.96—129.99 in the following manner:
- (1) The records shall include sufficient data and calculations to demonstrate that the requirements of §§ 129.96—129.99 are met.
- (2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

- [<u>(3) The records shall be retained for 5 years and made available to the Department or appropriate approved local air pollution control agency upon written request.</u>]
- (e) [The] 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 NO<sub>x</sub> 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) [The] 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) The owner or operator of a combustion unit subject to § 129.97(b)[12] shall record each adjustment conducted under the procedures in § 129.97(b)[13] [in a permanently bound log book or other method approved by the Department or appropriate approved local air pollution control agency]. This [log book] RECORD must contain, at a minimum:
  - (1) The date of the tuning procedure.
  - (2) The name of the service company and the technician performing the procedure.
  - (3) The final operating rate or load.
  - (4) The final  $NO_x$  and CO emission rates.
  - (5) The final excess oxygen rate.
  - (6) Other information required by the applicable operating permit.
- [ (h) The owner or operator of an oil-fired, gas-fired or combination oil-fired and gas-fired unit subject to § 129.97(b)(2) shall maintain records including a certification from the fuel supplier of the type of fuel. For each shipment of residual oil, the record must include:
- (1) A certification of the nitrogen content of the fuel.
- (2) Identification of the sampling method and sampling protocol used to determine the nitrogen content of the fuel.
- [(i)] (h) The owner or operator of a Portland cement kiln subject to § 129.97(h) shall maintain a daily operating log for each Portland cement kiln. The record for each kiln must include:

- (1) The total hours of operation.
- (2) The type and quantity of fuel used.
- (3) The quantity of clinker produced.
- (4) The date, time and duration of a start-up, shutdown or malfunction of a Portland cement kiln or emissions monitoring system.
- (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.