

EASTERN KERN AIR POLLUTION CONTROL DISTRICT



MAJOR SOURCE PERMIT TO OPERATE

2700 "M" Street, Suite 302
Bakersfield, CA 93301-2370
Bakersfield: (661) 862-5250
Field Office: (661) 823-9264

Permittee: Edwards Air Force Base (AFB) – Air Force Research Laboratory (AFRL)

Location: 412th Civil Engineer Group
Environmental Management Division, Compliance Branch
120 N. Rosamond Boulevard
Edwards Air Force Base CA 93524

Permit No: 9002-V-2000-1

Issuance Date: Month XX, 2015

Expiration Date: Month XX, 2020

Nature of Business: Edwards Air Force Base

This permit is issued pursuant to, and is conditioned upon, compliance with provisions of the Eastern Kern Air Pollution Control District (District) Rules and Regulations as authorized by the California Health and Safety Code (CH&SC), Section 39002. This permit is subject to accuracy of all information submitted relating to the permit application and to conditions appended hereto. It is valid from date of issuance until date of expiration unless renewed and shall be made readily available for inspection at any reasonable time to any and all persons who may request to see it.

Pursuant to the Clean Air Act Amendments of 1990 (CAAA), all conditions of this permit are federally enforceable by United States Environmental Protection Agency (EPA) and District. Those provisions which are not required by the CAAA are considered to be District provisions and are not federally enforceable by EPA.

By:

Glen Stephens, P.E.
Air Pollution Control Officer

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General Permit Conditions

In accordance with CH&SC, Sections 39002 and 42301.10 through 42301.12 and all applicable District Rules and Regulations, the conditions which are listed below are hereby contained in and made a part of this permit:

	Federally Enforceable Conditions	Reg/Rule
1.	<p><u>Inspections</u></p> <p>Inspections shall be made by the enforcement agency for the purpose of obtaining information necessary to determine whether air pollution sources are in compliance with applicable rules and regulations, including authority to require record keeping and to make inspections and conduct tests of air pollution sources.</p>	Reg. I, Rule 107
2.	<p><u>Stack Monitoring</u></p> <p>Upon the request of and as directed by the Control Officer, the owner shall provide, install, and operate continuous monitoring equipment on such operations as directed. The owner shall maintain, calibrate, and repair the equipment and shall keep the equipment operating at design capabilities.</p>	Reg. I, Rule 108
3.	<p><u>Source Sampling</u></p> <p>Upon the request of the Control Officer and as directed by him the owner of any source operation which emits or may emit air contaminants, for which emission limits have been established, shall provide the necessary and proper facilities for source sampling.</p> <p>The applicable test method, if not specified in the rule, shall be conducted in accordance with Title 40 CFR, Subpart 60, Appendix A - Reference Methods, except particulate matter (PM₁₀) for compliance with Rule 210.1 requirements shall be conducted in accordance with Title 40 CFR, Subpart 51, Appendix M, Method 201 or 201A. Where no test method exists in the preceding references for a source type source sampling shall be conducted in accordance with California Air Resources Board (CARB) approved methods.</p>	Reg. I, Rule 108.1
4.	<p><u>Equipment Breakdown</u></p> <p>An occurrence which constitutes a breakdown condition, and which persists only until the end of the production run or 24-hours, whichever is sooner (except for continuous monitoring equipment, for which the period shall be ninety-six (96) hours), shall constitute a violation of any applicable emission limitation or restriction prescribed by these Rules and Regulations; however, no enforcement action may be taken provided the owner or operator demonstrates to the Control Officer that a breakdown condition exists and the proper requirements are met.</p>	Reg. I, Rule 111

	Federally Enforceable Conditions	Reg/Rule
5.	<p><u>Severability</u></p> <p>If any provision, clause, sentence, paragraph, section or part of these Regulations or application thereof to any person or circumstance shall for any reason be adjudged by a court of competent jurisdiction to be unconstitutional or invalid, such judgment shall not affect or invalidate the remainder of this Regulation and the application of such provision to other persons or circumstances, but shall be confined in its operation to the provision, clause, sentence, paragraph, section or part thereof directly involved in the controversy in which such judgment shall have been rendered and to the person or circumstance involved, and it is hereby declared to be the intent of the Eastern Kern Air Pollution Control Board that these Regulations would have been issued in any case had such invalid provision or provisions not been included.</p>	Reg. I, Rule 114
6.	<p><u>Applicability of Federally Enforceable Conditions</u></p> <p>Federally Enforceable Conditions <u>shall apply</u> to Design Conditions, Operational Conditions, Special Conditions, Compliance Testing Requirements, and Emission Limits. Any District or State-only condition (not required by the EPA) does not apply.</p>	Reg. II, Rule 201.1
7.	<p><u>Compliance with Permit Conditions</u></p> <p>A. Edwards AFB shall comply with all permit conditions;</p> <p>B. Permit does not convey any property rights or any exclusive privilege;</p> <p>C. Non-compliance with any permit condition shall be grounds for permit termination, revocation and reissuance, modification, enforcement action or denial of permit renewal;</p> <p>D. Edwards AFB shall not use “need to halt or reduce a permitted activity in order to maintain compliance” as a defense for non-compliance with any permit condition;</p> <p>E. Pending permit action or notification of anticipated non-compliance does not stay any permit condition; and</p> <p>F. Within a reasonable time period, Edwards AFB shall furnish any information requested by the APCO, in writing, for purpose of determining: 1) compliance with the permit, or 2) whether or not cause exists for a permit or enforcement action.</p>	Reg. II, Rule 201.1

	Federally Enforceable Conditions	Reg/Rule
8.	<p><u>Permit Life</u></p> <p>The life of this permit shall be five years from the date of issuance.</p>	Reg. II, Rule 201.1
9.	<p><u>Administrative Permit Amendment and Minor Permit Modification</u></p> <p>Administrative Permit Amendment and Minor Permit Modification are those actions taken by the District as defined in Rule 201.1.</p>	Reg. II, Rule 201.1
10.	<p><u>Emergency Provisions</u></p> <p>A. Edwards AFB shall comply with the requirements of Rule 111 and the emergency provisions contained in all permit streamlining requirements imposed in accordance with Subsection VI.J. all District-only rules which apply in accordance with Subsection VI.K.1. and all applicable federal requirements not subsumed by such permit streamlining requirement(s) or District-only rules;</p> <p>B. Within two weeks of an emergency event, an owner or operator of the source shall submit to the District a properly signed, contemporaneous log or other relevant evidence which demonstrates that:</p> <ol style="list-style-type: none"> 1) An emergency occurred; 2) The permittee can identify the cause(s) of the emergency; 3) The facility was being properly operated at the time of the emergency; 4) All steps were taken to minimize the emissions resulting from the emergency; and 5) Within two working days of the emergency event, the permittee provided the District with a description of the emergency and any mitigating or corrective actions taken; <p>C. In any enforcement proceeding, the permittee has the burden of proof for establishing that an emergency occurred.</p>	Reg. II, Rule 201.1

	<u>Federally Enforceable Conditions</u>	Reg/Rule
11.	<p><u>Record Keeping</u></p> <p>A. Recording of maintenance of all monitoring and support information associated with all permit streamlining requirements imposed in accordance with Rule 201.1, Subsection VI.J., all District-only rules which apply in accordance with Rule 201.1, Subsection VI.K.1., and all applicable federal requirements not submitted by such permit streamlining requirement(s) or District-only rules, including:</p> <ol style="list-style-type: none"> 1) Date, place, and time of sampling; 2) Operating conditions at time of sampling; 3) Date, place, and method of analysis; and 4) Results of analysis; <p>B. Retention of records of all required monitoring data and support information for a period of at least five years from the date of sample collection, measurement, report, or application; and</p> <p>C. Any other record keeping deemed necessary by the APCO to ensure compliance with all permit streamlining requirements imposed in accordance with Rule 201.1, Subsection VI.J., all District-only rules which apply in accordance with Rule 201.1, Subsection VI.K.1., and all applicable federal requirements not subsumed by such permit streamlining requirement(s) or District-only rules.</p>	Reg. II, Rule 201.1
12.	<p><u>Referencing of District and Applicable Requirements</u></p> <p>Pursuant to Rule 201.1.VI.C. District hereby references the following documents which are clearly identified and available to the District and to the public:</p> <p>Each reference shall include, at a minimum, title or document number, author and recipient if applicable, date, citation of relevant sections of the Rule or document, and identification of specific source activities or equipment for which the referencing applies.</p>	Reg. II, Rule 201.1

	<u>Federally Enforceable Conditions</u>	Reg/Rule
13.	<p><u>Reporting</u></p> <p>A. Any non-conformance with permit requirements, including any attributable to emergency conditions (as defined in Rule 201.1) shall be promptly reported to the APCO and in accordance with Rule 111;</p> <p>B. Monitoring report shall be submitted at least every six months identifying any non-conformance with permit requirements, including any previously reported to the APCO;</p> <p>C. All reports of non-conformance with permit requirements shall include probable cause of non-conformance and any preventative or corrective action taken;</p> <p>D. Progress report shall be made on a compliance schedule at least semi-annually and including:</p> <ol style="list-style-type: none"> 1) Date when compliance will be achieved, 2) Explanation of why compliance was not, or will not be achieved by the scheduled date, and 3) Log of any preventative or corrective action taken; and <p>E. Each monitoring report shall be accompanied by a written statement from the responsible official certifying the truth, accuracy, and completeness of the report.</p>	Reg. II, Rule 201.1
14.	<p><u>Right of Entry</u></p> <p>Edwards AFB shall allow entry of District, CARB, or U.S. EPA officials for purpose of inspection and sampling, including:</p> <p>A. Inspection of the stationary source, including equipment, work practices, operations, and emission-related activity;</p> <p>B. Inspection and duplication of records required by the permit to operate; and</p> <p>C. Source sampling or other monitoring activities.</p>	Reg. II, Rule 201.1

	Federally Enforceable Conditions	Reg/Rule
15.	<p><u>Periodic Monitoring</u></p> <p><u>Non-Point</u></p> <p>Edwards AFB shall conduct testing semi-annually, in accordance with the methodology contained in EPA Method 22 for all active non-point sources. This testing will be the basis for determining compliance with the visible emission standard in District Rule 401. If no emissions are observed utilizing Method 22, the non-point source shall be deemed to be in compliance with the visible emission standard. If emissions are observed from any non-point source and that source is not operating under breakdown condition as defined in and allowed for in District Rule 111, Edwards AFB shall conduct testing on that non-point source within 24 hours of the Method 22 testing in accordance with EPA Method 9 to verify compliance with the visible emission standard.</p> <p>NOTE: This requirement does not apply to fugitive emissions resulting from activities not covered by a permit to operate unless the source is subject to District Rule 210.1 (NSR) requirements.</p> <p><u>Point</u></p> <p>Edwards AFB shall conduct testing semi-annually, in accordance with the methodology contained in EPA Method 22 for all active/in use point sources. This testing will be the basis for determining compliance with the visible emission standard in District Rule 401. If no emissions are observed utilizing Method 22, the point source shall be deemed to be in compliance with the visible emission standard. If emissions are observed from any point source and that point source is not operating under breakdown condition as defined in and allowed for in District Rule 111, Edwards AFB shall conduct testing on that point source:</p> <p>A. Within 24 hours of the Method 22 testing in accordance with EPA Method 9 to verify compliance with the visible emission standard. If compliance is not documented:</p> <p>B. Within 30 days of the Method 9 testing in accordance with EPA Method 5 or 5D to verify compliance with the requirements of District Rules 404.1, 405, 406 and/or 210.1.</p>	Reg. II, Rule 201.1

	Federally Enforceable Conditions	Reg/Rule
16.	<p><u>Additional Monitoring</u></p> <p>Diesel standby and emergency piston engines do not require opacity monitoring if utilizing California diesel or other low-sulfur, low aromatic fuel. Fuel records shall be kept for verification purposes and an operational log for hours of operation.</p> <p>All control equipment shall be inspected annually for proper operation. Edwards AFB shall maintain all records of control equipment maintenance for a period of five years.</p> <p>Monitoring shall be the responsibility of the source; however, a visible emissions inspection or Method 9 conducted by a District inspector may be counted as meeting the requirement for the source to conduct same if the information and records generated by the inspector meets the requirements of the permit and a copy of the records are maintained by the source for a period of five years.</p> <p>Record keeping provisions associated with all monitoring requirements shall include the following information:</p> <ul style="list-style-type: none"> A. Identification of stack or emission point being monitored; B. Operational conditions at the time of monitoring; C. Records of any monitoring conducted, including records of emission or operational parameter values and the date, place and time of sampling or measurement; and D. Where corrective action is triggered, description of the corrective action and the date, time and results of any corrective action. <p><u>Testing</u></p> <p>Any unit simultaneously firing a combination of different fuels shall have installed and maintained a totalizing mass or volumetric flow rate meter in each fuel line.</p> <p>Any unit utilizing equipment intended to reduce or control NO_x shall install and maintain appropriate provisions to monitor operational parameters of unit and/or NO_x control system that correlate to NO_x emissions.</p> <p>Edwards AFB shall monitor and record higher heating value (HHV) and cumulative annual use of each fuel.</p> <p>Any unit operated under natural gas curtailment limit of District Rule 425.2, Subsection V.A. shall monitor and record cumulative annual hours of operation on liquid fuel during curtailment and during testing.</p>	Reg. II, Rule 201.1

	Federally Enforceable Conditions	Reg/Rule
16.	<p>The testing of identical units may be limited to testing one unit per group of units after establishing correlation of NO_x emissions and key operating parameters and keeping records of these data for each affected unit.</p> <p>Records shall be maintained for at least five calendar years on site and shall be made readily available to District personnel.</p> <p>Compliance test data and results collected shall be submitted to District within 60 days of collection.</p> <p>Units that exceed annual heat input of 90,000 therms or more during one or more of the three preceding years of operation shall be tested to determine compliance with applicable requirements not less than once every 12 months. An owner/operator of gaseous fuel-fired units demonstrating compliance for two consecutive years can, if desired, demonstrate compliance once every thirty-six months.</p> <p>Test results from an individual unit may be used for other units at the same location provided manufacturer, model number, rated capacity, fuel type, and emission control provisions are identical and key operating parameters such as stack gas oxygen, fuel consumption, etc. are monitored and established to correlate with NO_x emissions from unit tested.</p> <p>Fuel HHV shall be certified by third party fuel supplier or determined by:</p> <p>A. ASTM D 240-87 or D 2382-88 for liquid fuels; and</p> <p>B. ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels.</p> <p>Oxides of nitrogen (ppmv) - EPA Method 7E, or CARB Method 100. Carbon monoxide (ppmv) - EPA Method 10, or CARB Method 100. Stack gas oxygen - EPA Method 3 or 3A, or CARB Method 100.</p> <p>NO_x emission rate (heat input basis) - EPA Method 19, or CARB Method 100 and data from fuel flow meter.</p> <p>Period monitoring may also be performed based on CARB's June 24, 1999 Periodic Monitoring Guidelines.</p> <p>Applies to EU's 0134050, 0134051, 0134065, 0134066, 0134067, 0134068, 0134070, 0134071, 0134072 and 0134075.</p>	

	Federally Enforceable Conditions	Reg/Rule
17.	<p><u>Conditional Approval</u></p> <p>The Control Officer shall issue an Authority to Construct or a Permit to Operate, subject to conditions to insure compliance of the operation of any article, machine, equipment or other contrivance within the standards of Rule 208 and 208.1, in which case the conditions shall be specified in writing. Commencing work under such Authority to Construct or operation under such Permit to Operate shall be deemed acceptance of all conditions so specified. The Control Officer shall issue an Authority to Construct or Permit to Operate with revised conditions upon receipt of a new application, if the applicant demonstrates the article, machine, equipment or other contrivance can be operated within the standards of Rule 208 and 208.1 under the revised conditions.</p>	Reg. II, Rule 209
18.	<p><u>Standards for Authority to Construct</u></p> <p>A. Edwards AFB may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:</p> <ol style="list-style-type: none"> 1) The Permittee has obtained all permits and approvals required by District Rules 201 and 210.1 (unless the change is exempt under District Rule 202); 2) The change is not subject to any requirements under Title IV of the CAA; 3) The change is not a Title I modification; and 4) The change does not violate an applicable requirement of the CAA or a federally enforceable term or condition of this permit. <p>B. For a change that qualified under this section, the Permittee shall provide contemporaneous written notice to the District and the U.S. EPA (except for a change that is exempt under District Rule 202). This written notice shall describe the change, including the date it was made, and shall contain other information as required to determine new applicable requirements of the Clean Air Act that apply as a result of the change;</p> <p>C. Upon satisfying the requirements of paragraph B above, the Permittee may make the proposed change;</p> <p>D. Changes that qualify under this section are not subject to the requirements for Part 70 revisions;</p> <p>E. The Permittee shall include each off-permit change made under this section in the application for renewal of this Part 70 permit; and</p> <p>F. The permit shield(s) provided in this permit do not apply to off-permit changes made under this section.</p>	Reg. II, Rule 210.1 Section IV. D.3

	<u>Federally Enforceable Conditions</u>	Reg/Rule
19.	<p><u>Prevention of Significant Deterioration (PSD)</u></p> <p>Edwards AFB may be subject to District Rule 210.4, Prevention of Significant Deterioration (PSD) if it undergoes major modification(s).</p>	Reg. II, Rule 210.4
20.	<p><u>Permit Fees</u></p> <p>Every applicant for an Authority to Construct or a Permit to Operate shall pay a filing fee. For issuance of an Authority to Construct, or an initial Permit to Operate, the applicant shall pay fees as prescribed in Rule 301. For issuance of an Authority to Construct, application processing fees shall also be paid as prescribed in Rule 303. The applicant shall receive credit for filing fees paid.</p> <p>Annually on the anniversary of issuance of a Permit to Operate, the permittee shall pay a renewal fee as prescribed in Rule 301. Fees collected pursuant to Rule 201.1, Section VIII.B. shall supplement applicable Rules 301 and 301.3 fee requirements.</p> <p><u>Payment of Supplemental Fee</u></p> <p>An owner or operator, or his designee, shall pay an annual supplemental fee for a permit to operate pursuant to Rule 201.1 as determined by the calculation method in Subsection VIII.B.3., to provide a District-wide fee rate of \$25 per ton of fee-based emissions (CPI-adjusted) for all facilities subject to Rule 201.1, unless Rule 201.1 VIII.B.2. applies.</p>	Reg. III, Rule 301
21.	<p><u>Greenhouse Gas Fee</u></p> <p>Any stationary source that has actual GHG emissions, in the prior calendar year, greater than or equal to 100,000 tons of CO₂e, as calculated in accordance with 40 CFR Part 98, shall pay a Consumer Price Index (CPI) adjusted GHG fee per ton of CO₂e being emitted. Sources subject to this Rule shall submit an annual report of GHG emissions to the District no later than the thirty-first day of March.</p>	Reg. III, Rule 301.4

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	Federally Enforceable Conditions	Reg/Rule
22.	<p><u>Visible Emissions</u></p> <p>Unless otherwise stated in equipment specific permits, the following limits apply:</p> <p><u>Limits</u></p> <p>A person shall not discharge into the atmosphere, from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:</p> <p>A. As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or</p> <p>B. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Subsection A.</p>	Reg. IV, Rule 401
23.	<p><u>Particulate Matter Concentration - Desert Basin</u></p> <p>A. A person shall not discharge into the atmosphere from any single source operation, in service on the date this Rule is adopted, particulate matter in excess of 0.2 grains per cubic foot of gas at standard conditions.</p> <p>B. A person shall not discharge into the atmosphere from any single source operation, the construction or modification of which commenced after the adoption of this Rule, particulate matter in excess of 0.1 grains per cubic foot of gas at standard conditions.</p>	Reg. IV, Rule 404.1
24.	<p><u>Particulate Matter - Emission Rate</u></p> <p>A person shall not discharge into the atmosphere from any source operation, particulate matter in excess of the limits set forth in the allowable particle emissions based on process weight rate table included in Rule 405.</p>	Reg. IV, Rule 405
25.	<p><u>Sulfur Compounds</u></p> <p>A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 percent by volume calculated as sulfur dioxide (SO₂).</p>	Reg. IV, Rule 407

	Federally Enforceable Conditions	Reg/Rule
26.	<p><u>Fuel Burning Equipment - Combustion Contaminants</u></p> <p>A. Fuel burning equipment, the construction or modification of which is commenced after August 17, 1971, shall not discharge into the atmosphere particulate matter, sulfur dioxide or nitrogen oxides in excess of the Environmental Protection Agency Standard of Performance.</p> <p>B. A person shall not discharge into the atmosphere combustion contaminants exceeding in concentration at the point of discharge: 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO₂) at standard conditions.</p>	Reg. IV, Rule 409
27.	<p><u>Organic Solvents</u></p> <p>A person shall not discharge into the atmosphere more organic materials in any one day from any article, machine, equipment or other contrivance in which any organic solvent or any material containing organic solvent is utilized unless the emissions are controlled or reduced as outlined in the organic solvent rule (410).</p>	Reg. IV, Rule 410
28.	<p><u>Disposal and Evaporation of Solvents</u></p> <p>A person shall not during any one day disposed of a total of more than 1½ gallons of any photochemically reactive solvent as defined in Rule 410.2, or of any material containing more than 1½ gallons of any such photochemically reactive solvent into the atmosphere.</p>	Reg. IV, Rule 410.2
29.	<p><u>Organic Solvent Degreasing Operation</u></p> <p>A person shall not operate any organic solvent degreasing operation unless the equipment utilized complies with all applicable requirements of Rule 410.3.</p>	Reg. IV, Rule 410.3
30.	<p><u>Metal, Plastic, and Pleasure Craft Parts and Products Coating Operations</u></p> <p>Edwards AFB may be subject to provisions of Rule 410.4 that apply to surface coating of metal parts or products, large appliances parts or products, metal furniture, and plastic parts or products including automotive, transportation, and business machine, and pleasure crafts, and to the cleaning, storage, and disposal of all organic solvents and waste solvent materials associated with such coating operations.</p>	Reg. IV, Rule 410.4

	Federally Enforceable Conditions	Reg/Rule
31.	<p><u>Aerospace Assembly and Coating Operations</u></p> <p>Edwards AFB shall comply with all applicable requirements of Rule 410.8.</p>	Reg. IV, Rule 410.8
32.	<p><u>Storage of Organic Liquids</u></p> <p>A person shall not use equipment to store organic liquids and petroleum distillates with a true vapor pressure greater than 1.5 psia unless provisions are made for controlling organic vapors.</p>	Reg. IV, Rule 411
33.	<p><u>Open Burning</u></p> <p><u>Applicability</u></p> <p>This Rule shall apply to all burning activities not confined to an incinerator which meets requirements of Rule 418 (Incinerators), but shall not apply to combustion of fuels in a device designed to produce useful energy and which meets all applicable parts of Regulation IV.</p> <p><u>Prohibition</u></p> <p>No person shall burn any refuse or other material in an open outdoor fire within the boundaries of the District, unless any of the exceptions in Rule 416 apply. Burning of Federal facility materials must comply with applicable requirements of Section V of Rule 416.</p>	Reg. IV, Rule 416
34.	<p><u>Nuisance</u></p> <p>A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.</p>	Reg. IV, Rule 419

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	Federally Enforceable Conditions	Reg/Rule
35.	<p><u>Federal New Source Performance Standards (NSPS)</u></p> <p>Provisions of Part 60, Chapter 1, Title 40, Code of Federal Regulations, in effect September 5, 1996, are hereby adopted by reference and made a part hereof. All new and modified sources shall comply with applicable standards, criteria and requirements set forth therein.</p> <p>All applicable requirements of 40 CFR Part 60, Subparts A (General Requirements).</p>	Reg. IV, Rule 422
36.	<p><u>National Emission Standards for Hazardous Air Pollutants and Source Categories (NESHAPS)</u></p> <p>Provisions of Title 40, Chapter 1, Parts 61 and 63, Code of Federal Regulations, in effect November 7, 2002, are hereby adopted by reference and made a part hereof. All sources of hazardous air pollution shall comply with applicable standards, criteria and requirements set forth herein.</p> <p>All applicable requirements of 40 CFR Part 61, Subparts M (Asbestos), C (Beryllium), and D (Beryllium Rocket Motor Firing); and 40 CFR Part 63, Subparts A (General Provisions), ZZZZ (RICE), and DDDDD (Industrial, Commercial, and Institutional Boilers and Process Heaters) apply to this facility.</p> <p>The RICE NESHAP does not apply to portable or transportable (has wheels, skids, carrying handles, dolly, trailer, or platform), which do not remain in one location within the facility for more than 12 months.</p>	Reg. IV, Rule 423
37.	<p><u>Boilers, Steam Generators, and Process Heaters (Oxides of Nitrogen)</u></p> <p>An owner/operator of any emission unit with annual heat input of 90,000 therms or more during one or more of the three preceding years of operation shall comply with applicable NOx emission limit(s) listed in Section V, Requirements of Rule 425.2.</p>	Reg. IV, Rule 425.2
38.	<p><u>Propellant Combustion and Rocket Testing</u></p> <p>Edwards AFB shall comply with all applicable requirements of Rule 431.</p>	Reg. IV, Rule 431
39.	<p><u>Polyester Resin Operations</u></p> <p>Edwards AFB shall comply with all applicable requirements of Rule 432.</p>	Reg. IV, Rule 432

	Federally Enforceable Conditions	Reg/Rule
40.	<p><u>Beryllium and Beryllium Rocket Motor Firing</u></p> <p>Edwards AFB shall not engage in any activities subject to requirements of 40 CFR 61, Subparts C and D (Beryllium and Beryllium Rocket Motor Firing) without first applying for and receiving approval as specified in District Rule 201.1.</p>	40 CFR 61 Subparts C and D
41.	<p><u>National Emission Standard for Asbestos</u></p> <p>Edwards AFB shall comply with the applicable requirements of Sections 61.145 through 61.147 of the National Emission Standard for Asbestos for all demolition and renovation projects.</p>	40 CFR 61 Subpart M
42.	<p><u>Risk Management Plan</u></p> <p>Should this stationary source, as defined in 40 CFR section 68.3, become subject to the accidental release prevention regulations in part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in section 68.10 and shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR part 70 or 71.</p>	40 CFR 68
43.	<p><u>Compliance Certification</u></p> <p>The owner/operator shall comply with the following procedures for compliance certification:</p> <ul style="list-style-type: none"> A. Submittal of a compliance certification by the owner or operator to the U.S. EPA and copy to the APCO within 60 days after end of compliance certification period; B. Compliance certification period shall begin 1 March of each year and end the last day of February of the following year; C. The Annual Compliance Certification also satisfies the second semi-annual Monitoring Report requirement; D. Such compliance certification shall identify the basis for each permit term or condition, e.g., specify the emissions limitation, standard or work practice, and a means of monitoring compliance with the term or condition; E. Such compliance certification shall include compliance status and method(s) used to determine compliance for the current time period and over entire reporting period; and 	40 CFR 70.5d

	<u>Federally Enforceable Conditions</u>	Reg/Rule
	<p>F. Such compliance certification shall include any additional inspection, monitoring or entry requirement promulgated pursuant to Sections 114(a) and 504(b) of the CAA.</p> <p>Any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.</p> <p>U.S. EPA's Mailing Address: Director, Air Division 75 Hawthorne Street AIR-3 San Francisco, CA 94105</p>	40 CFR 70.5d
44.	<p><u>Protection of Stratospheric Ozone</u></p> <p>Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR §82.156.</p> <p>Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR §82.158. Persons performing maintenance, service, repair or disposal of appliances must be certified by a certified technician pursuant to 40 CFR §82.161.</p>	40 CFR 82

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List of Insignificant Air Pollutant Emitting Equipment

Abrasive Blasting:

- Cabinets (Water-suspended Abrasive),
- Cabinets $\leq 50 \text{ ft}^3$ (Manually-Operated with Dust Filter),
- Enclosed Equipment at Subzero Temperatures,
- Shot Peening (No Surface Removal), and
- Portable Sand/Water Blaster

Air Conditioning Equipment Used for Comfort

Architectural Surface Coatings

Atomic Absorption

Autoclave

Boilers, Steam Generators & Heaters $< 5 \text{ MM Btu/hr}$

Brazing, Soldering, Welding Equipment

Bunsen Burners

Compression Molding (No Plasticizer)

Cooling Towers

Solvent Cleaning Operations (Small, Unheated and UnconveyORIZED)

Electric Baking Oven

Electric Fired Kiln

Emissions Unit Emitting $< 2 \text{ lbs}$ in any 24 hr Period

Emissions Unit Emitting:

- $< 10 \text{ lbs}$ of NO_x or VOC in any 24 hr Period, and
- $< 180 \text{ lbs-NO}_x$ or VOC in any quarter

Emissions Unit (Not Replacement Unit)

- Operated < 45 days and
- Emitting $< 2 \text{ tons/yr}$

Extrusion (No Blowing Agent or Plasticizer)

Food Processing Equipment

IC Engines $< 50 \text{ bhp}$

Inductively Coupled Plasma

Laboratory Hood

List of Insignificant Air Pollutant Emitting Equipment

Loading Racks and Equipment

Motor Vehicles as Defined in the CH&SC

Plastic/Rubber Processing Equipment

Portable Engines - California Registered

Printing and Reproduction Equipment

Small Turbine Engine Test Stand

Space Heating Equipment

Space Heaters, Natural Gas or LPG

Spectro Photometer

Steam Cleaners, Natural Gas

Storage Vessels for Certain Materials

Turbine Engines < 3 MM Btu/hr

Unvented Pressure Vessels Associated with Exempt Source Operation

Vehicles

Wastewater Separator

Wet Scrubber

Aerospace

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Emission Unit 0134095 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134095	Satellite Propulsion Complex

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Satellite Propulsion Complex, including following equipment:

- A. A - E cells;
- B. Scrubber; and
- C. Flare.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 4170)

Emission Unit 0134096 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134096	Propellant Laboratory

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Propellant Laboratory, including following equipment:

- A. 5 laboratory hood;
- B. One canopy hood;
- C. 1 pint mixer with telescopic arm and shield;
- D. 1 50-gallon mixer telescopic arm and shield;
- E. 1 gallon mixer with telescopic arm and shield;
- F. One ¼-pint mixer;
- G. Hammer mill;
- H. Ball mill;
- I. 4 convection ovens;
- J. 2 vacuum ovens;
- K. Drying oven building;
- L. Cure oven building;
- M. 3 acetone dip tanks (permit exempt per Rule 102.L);
- N. Test Pad 44 (shared with 0134132); and
- O. Test Pad X.

OPERATIONAL CONDITIONS:

- 1. Particulate matter emissions from any single source operation except solid rocket testing shall be no more than 0.1 gr/scf. (Rule 404.1)
- 2. If solvent flow is utilized, only continuous fluid stream (not fine, atomized, or shower type spray) shall be used at pressure that does not cause liquid solvent to splash outside of solvent container. (Rule 410.3)
- 3. No porous or absorbent materials such as cloth, leather, wood, or rope shall be cleaned. (Rule 410.3)
- 4. No solvent shall be stored or disposed, including waste solvent and solvent residues, in such manner to cause or allow its evaporation into atmosphere. (Rule 210.1)
- 5. Waste solvent and waste solvent residues shall be managed in compliance with California and Federal requirements applicable to solid wastes, hazardous wastes, or recyclable materials. (Rule 410.3)
- 6. Solvent agitation, where necessary, shall be achieved only by pump circulation, mixer, or ultrasonic. Air agitation shall not be used. (Rule 410.3)
- 7. Equipment shall be maintained according to manufacturer's specifications. (Rules 210.1 and 209)

Emission Unit 0134096 Permit Conditions

8. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rule 210.1)
9. Emission from use of this equipment shall not cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

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Emission Unit 0134097 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134097	Solid Propellant Component Complex

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Solid Propellant Component Complex, including following equipment:

- A. Test pads 1-5; and
- B. Machine Shop (Bldg. 8910).

OPERATIONAL CONDITIONS:

- 1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 2. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

Emission Unit 0134098 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134098	Space Environment Propulsion Complex

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Space Environment Propulsion Complex, including following equipment:

- A. Test cells A-E;
- B. Two LPG vaporizers (permit exempt); and
- C. Scrubber.

OPERATIONAL CONDITIONS:

- 1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 2. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

Emission Unit 0134099 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134099	Chemical Handling & Disposal Research Facility

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Chemical Handling & Disposal Research Facility, including following equipment:

A. Test stands A-C.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

Emission Unit 0134102 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134102	Propulsion Sciences Laboratory

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Propulsion Sciences Laboratory, including following equipment:

- A. Nineteen furnace/ovens;
- B. Sixty-one exhaust lab hoods;
- C. Two fluorine source capture systems; and
- D. Five small scale explosive test cells.

OPERATIONAL CONDITIONS:

- 1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 2. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec. 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

Emission Unit 0134103 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134103	Carbon Research Laboratory

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Carbon Research Laboratory, including following equipment:

- A. Six (6) exhaust lab hoods;
- B. Vacuum oven;
- C. Vacuum oven;
- D. Vacuum oven;
- E. Ten (10) tube furnaces;
- F. Three (3) tube furnaces;
- G. One tube furnaces;
- H. 10-kW induction furnace;
- I. Two graphite furnaces;
- J. Ashing furnace;
- K. Tube furnace;
- L. Airbrasive micro sandblaster;
- M. Low pressure plasma spray booth; and
- N. Cartridge fabric collector serving plasma spray booth with shaker cleaning mechanism, and fan with 2-hp motor.

OPERATIONAL CONDITIONS:

- 1. All ovens shall be electrically powered. (Rule 210.1)
- 2. Visible emissions from dust collector shall not exceed 5% opacity. (Rule 210.1)
- 3. Dust collector volumetric flow rate shall not exceed 1250 scfm. (Rule 210.1)
- 4. Dust collector shall be in operation with associated equipment is operated. (Rule 210.1)
- 5. Operating hours shall not exceed 10 hours/day and 52 weeks/year without prior District approval. (Rule 210.1)
- 6. All piping, ducting, and connections shall be leak-tight and shall have no visible emissions. (Rule 210.1)
- 7. Material collected in dust collector shall be disposed of or recycled in manner preventing entrainment in atmosphere. (Rule 210.1)
- 8. Equipment shall be maintained according to manufacturer's specifications. (Rules 210.1 and 209)
- 9. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rule 210.1)
- 10. Emission from use of this equipment shall not cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384.
(Rule 208.1)

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Emission Unit 0134104 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134104	PL Area 1-100 Open Burn/Open Detonation (OB/OD) Operation

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: PL Area 1-100 Open Burn/Open Detonation (OB/OD) Operation,
including following equipment:

One 200 ft. dia. cleared dirt surface, 600 ft. northeast of Bldg. 8955.

OPERATIONAL CONDITIONS:

1. Open burn/open detonation (OB/OD) operation to treat unwanted materials may not be conducted without prior approval from Control Officer through approval of OB/OD burn plan. Burn plan approval shall not be valid for more than one year, but may be renewed annually by Control Officer. (Rule 416)
2. Open burning/open detonation shall not be conducted on "no burn" days as specified by CARB or when such burning is prohibited by Control Officer for public health reasons. (Rule 416)
 - a. Before OB/OD operation takes place, a plan shall be submitted by Base Commanding Officer or by his designated representative to Control Officer and any other designated agencies having jurisdiction over proposed OB/OD operations. This plan shall:
 - 1.) Specify methods to be used to achieve detonation or combustion;
 - 2.) Limit category and amount of waste propellants, explosives, munitions, and pyrotechnics to be disposed of each year to an amount with projected lifetime toxic cancer risk less than one-in-one million and limit daily disposal amounts to that level not causing an impact above acute toxic thresholds. Toxic risks shall be demonstrated with modeling approved by Control Officer;
 - 3.) Limit open burn/open detonation operations or provide for mitigation when meteorological conditions could cause emissions to result in or contribute to exceedance of any state or federal ambient air quality standard or cause public nuisance;
 - 4.) Require waste propellants, explosives, munitions, and pyrotechnics (PEMP) treated to be free of non-PEMP materials, except for those materials necessary to safely store, handle, or treat PEMP or intimately-related materials also requiring treatment;
 - 5.) Require waste propellants, explosives, munitions, and pyrotechnics to be in condition facilitating combustion, assuring safe operation, and minimizing amount of emissions emitted during treatment;
 - 6.) Include following information:
 - a.) Location of proposed treatment operation;
 - b.) Category and amount of waste propellants, explosives, munitions, and pyrotechnics to be treated;
 - c.) Directions and distances to nearby receptor areas;
 - d.) Air quality impact analysis showing expected impacts with respect to state and federal ambient air quality standards;

Emission Unit 0134104 Permit Conditions

- e.) Risk assessment for acute and chronic health effects;
 - f.) Meteorological criteria developed for project;
 - g.) Projected schedule or frequency of OB/OD events;
 - h.) Specifications for monitoring and recording of critical project parameters; and
 - i.) Specifications for reporting and disseminating project information.
- 7.) Material to be treated shall be limited to PEMP generated from operations at federal facility where OB/OD operation is to take place;
 - 8.) Open burn/open detonation operations shall be allowed on normal business days for District, or on such other days as District may approve;
 - 9.) All open burn/open detonation operations shall conform to applicable jurisdictional fire codes; and
 - 10.) Open burn/open detonation operations shall not be initiated if emissions may drift into populated area or create public nuisance.
- 3. Total amount of material treated in any one day may be limited by District, taking into consideration potential for creation of threat to public health. (Rule 416)
 - 4. Records shall be maintained for type and amount of PEMP for each open burn/open detonation operation and shall be submitted to District no more than sixty days prior to end of burn plan approval period. Records shall be maintained for five years. (Rule 416)
 - 5. District staff shall be permitted, when accompanied by appropriate personnel: (Rule 416)
 - a. To enter premises where OB/OD site is located or in which any records are required to be kept under requirements of the plan; and
 - b. To inspect any equipment, operation, or method required by burn plan. District shall also have authority to require collection and analysis of emission samples from source.
 - 6. Summary of data required to determine compliance with applicable provisions of Rule 416 shall be submitted to, and as prescribed by, Control Officer. (Rule 416)

NOTE:

All conditions are from District Rule 416, Section V (Treatment of Federal Facility Materials).

Emission Unit 0134106 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134106	Rocket Nozzle Construction Operation

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Nozzle Construction Operation, including following equipment:

- A. One lathe (10 hp);
- B. CNC Milling Machine, Model Partner 3, S/N: W1824, (5-hp);
- C. Lathe (15-hp);
- D. Vertical bandsaw (8.6-hp); and
- E. Downflow dust collector with 7.5 hp motor.

OPERATIONAL CONDITIONS:

- 1. Total particulate matter emission concentration from dust collector shall not exceed 0.1 gr/scf. (Rule 404.1)
- 2. Visible emissions from dust collector shall not exceed 10% opacity. (Rule 210.1)
- 3. Dust collector volumetric exhaust flow rate shall not exceed 6,300 cfm. (Rule 210.1)
- 4. Dust collector shall be in operation when associated equipment is operated. (Rule 210.1)
- 5. All piping, ducting, and connections shall be leak-tight and shall have no visible emissions. (Rule 210.1)
- 6. Material collected in dust collector shall be disposed of in manner preventing entrainment in atmosphere. (Rule 210.1)
- 7. Equipment shall be maintained according to manufacturer's specifications. (Rules 210.1 and 209)
- 8. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rule 210.1)
- 9. Emission from use of this equipment shall not cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with dust collector emission limitations shall be verified, within 60 days of District request. (Rule 108.1)

Emission Unit 0134106 Permit Conditions

EMISSION LIMITS:

Emission rate of each air contaminant from this emissions unit shall not exceed the following emissions limitations:

Particulate Matter:

0.001 gr/scf BACT Requirement
0.65 lb/day (of PM₁₀)
0.12 tons/year (of PM₁₀)

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Emission Unit 0134107 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134107	Rocket Motor Behavior Complex

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Motor Behavior Complex, including following equipment:

- A. Test Pad A (horizontal test stand); and
- B. Test Pad B (vertical test stand).

OPERATIONAL CONDITIONS:

1. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41)

Emission Unit 0134108 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134108	Rocket Propellant Preparation Laboratory

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Solid Propellant Component Complex, including following equipment:

- A. Three propellant cutting rooms;
- B. 1-hp lathe;
- C. 1¼-hp milling machine;
- D. 5-hp band saw;
- E. One 1-hp gang saw;
- F. 20-inch diameter, 1.5-hp table saw;
- G. Wet cyclone serving lathe, milling machine, band saw, and table saw (Bldg. 8582); and
- H. Two Missimers ovens.

OPERATIONAL CONDITIONS:

- 1. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

Emission Unit 0134109 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134109	Rocket Propellant Storability Complex

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Propellant Storability Complex, including following equipment:

- A. Test Pads A-D;
- B. Air scrubber system; and
- C. Flare.

OPERATIONAL CONDITIONS:

- 1. Particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 3. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 4)

Emission Unit 0134115 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134115	Carbon Densification Process

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Carbon Densification Process, including following equipment:

- A. Up to ten carbon processing vessels (maximum diameter of 96 inches);
- B. Computer-controlled pressure-relief valve assembly;
- C. Rupture disk assembly;
- D. Stainless steel pipe condensing chambers;
- E. One clamshell slot capture hood assembly;
- F. One vent system isolation valve; and
- G. Ventilation and abatement line including:
 1. Nine 24" by 24" by 2", poly cotton filters with 27 ft² filter area and 12.6 air-to-media ratio;
 2. One magnahelic filter change gage serving cotton filters;
 3. Nine 24" by 24" by 4", micro glass filters with 127 ft² filter area and 59.25 air-to-media ratio;
 4. One magnahelic filter change gage serving micro glass filters;
 5. One hundred and eight, coconut shell granules activated carbon beds with 432 ft² filter area and total filter weight of 959 pounds;
 6. One 30 hp fan rated at 20,000 acfm;
 7. One 1.5 hp fan rated at 350-acfm serving ventilation line; and
 8. Two V 2000 activated carbon beds, each with 66 ft³ of activated carbon and measuring 85" high by 45.5" diameter (shared with PTO 0134128).

OPERATIONAL CONDITIONS:

1. Visible emissions shall not exceed 5% opacity or Ringelmann ¼ except for three minutes in any one hour. (Rule 210.1 BACT)
2. Each processing vessel shall be equipped with a clamshell capture hood, rupture disk assembly, computer controlled valve and condensation line. (Rule 210.1)
3. Processing vessels shall be used exclusively for preforms processed in synthetic or prefabricated Pitch materials, including those identified in the application. The District must be notified in writing at least 15 days before new materials are added. (Rule 209)
4. Applicant shall develop an exhaust stack grab sampling protocol and make it available to the District upon request. (Rule 210.1)
5. The test protocol shall be updated when new synthetic or prefabricated Pitch materials are used. (Rule 210.1)
6. Maximum daily mass of material processed in all processing vessels at one time shall be limited to 1,500 pounds. (Rule 210.1)
7. Ventilation systems shall be in operation when associated equipment is operated. (Rule 210.1)
8. Ducting shall be maintained leak-free. (Rules 209 and 210.1)
9. Filtration system shall be in operation when associated equipment is operated. (Rule 210.1)

Emission Unit 0134115 Permit Conditions

10. Magnahelic gages shall be checked weekly for indications of filters change. (Rules 209 and 210.1)
11. Filters shall be changed when necessary. (Rules 209 and 210.1)
12. Activated carbon beds shall be connected when associated equipment is operated. (Rule 210.1)
13. Applicant shall replace activated carbon upon no more than 92.5% carbon consumption. (Rules 209 and 210.1)
14. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with application under which this permit is issued. (Rule 210.1)
15. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)
16. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
17. There shall be no detectable odors at or beyond property boundary. (Rule 419)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with any emission limitations shall be verified, within 60 days of District request. Test results shall be submitted to District within 30 days after test completion. Stack sampling shall be performed upon District's request and sampling results reported to the District within 30 days of sampling. (Rule 108.1 and 210.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Volatile Organic Compounds (VOC):

5.63 lbm/day
1.03 ton/yr

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134120 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134120	Test Cell 27

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Test Cell 27, including following equipment:

- A. Two 12-foot walk-in lab hood;
- B. 3-hp electric blower;
- C. Industrial rotary evaporator:
 - 1. 50-liter rotating distillation round bottom flask;
 - 2. 20-liter receiving round bottom flasks; and
 - 3. 5-kW recirculating chiller;
- D. Peristaltic pump;
- E. Twin diaphragm N₂ driven drum pump;
- F. Diaphragm pump; and
- G. Dry vacuum pump.

Vessel 1 features:

- H. 72-liter jacketed pilot plant reactor equipped with:
 - 1. Turbine type agitator;
 - 2. N₂ driven agitator motor; and
 - 3. Ports for thermocouple, nitrogen purge, condenser and material transfer.
- I. 6900-Watt chiller/ heater;
- J. 3-foot temperature probe (thermocouple) connected to temperature controller;
- K. 45/50 condenser column joint;
- L. 1.5-hp N₂ drive motor; and
- M. Bottom ace version sink type drain equipped with flexible Teflon hose.

Vessel 2 features:

- N. 200-liter Kynar (PolyVinylidene DiFluoride – PVDF) conical tank equipped with:
 - 1. Ports for thermocouple, N₂ drive motor, N₂ purge, condenser and transfer, pH probe, or liquid transfer; and
 - 2. Drain with sight flow indicator.
- O. ½ -hp mixer;
- P. Vacuum pump assembly; including:
 - 1. Vacuum pump, Part #LVH80VK;
 - 2. Compressed air regulator, Part #3240022;
 - 3. PIAB vacustat, Part #01.0.1.074; and
 - 4. Vacuum trap.

Emission Unit 0134120 Permit Conditions

OPERATIONAL CONDITIONS:

1. Hours of operation shall be limited to 2880 hours per year. (Rule 210.1)
2. Operation shall have no oxides of nitrogen emissions. (Rule 210.1)
3. Nitrogen purge or blanketing shall be used when applicable for prevention of emissions. (Rule 210.1)
4. Applicant shall have an adequate and readily available supply of nitrogen for blanketing and purging. (Rule 210.1)
5. All reactors and associated equipment are to be kept leak-free. (Rule 210.1)
6. All reactor ports and openings shall be covered or closed when not in use. (Rules 209 and 210.1)
7. Applicant shall visually inspect all pumps weekly for leaks. (Rule 210.1)
8. If pump is leaking, owner/ operator shall repair pump within fifteen days. (Rules 209 and 210.1)
9. Visible emissions shall not exceed 20% opacity except for three minutes in any one-hour. (Rule 401)
10. Particulate matter concentration shall not exceed 0.1 grains per standard cubic foot. (Rule 404.1)
11. Sulfur concentrations existing as a gas or liquid at standard conditions shall not exceed 0.2 percent by volume calculated as sulfur dioxide. (Rule 407)
12. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)
13. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and H&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and EKAPCD Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Compliance with emission limits according to following table shall be verified through collection of source samples from HEHN, S-HAN-5, HN/ AN and BCP propellant synthesis within thirty days of startup and yearly thereafter (if non-compliance is suspected). Results from source sample analysis shall be sent to District within thirty days of collection. Emission limits shall be adjusted upon review of source test. (Rule 108.1)

Emission Unit 0134120 Permit Conditions

	PM	SO _x	NO _x	VOC	Hydrazine	Bromine Compounds
HEHN	√		√		√	
S-HAN-5	√		√		√	
HN/ AN	√		√			
BCP	√	√		√		√

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter: 1.16 lb/hr (of PM₁₀)
13.97 lb/day (of PM₁₀)
1.68 ton/yr (of PM₁₀)

Sulfur Oxides (as SO₂): 2.12 lb/hr
25.40 lb/day
3.05 ton/yr

Volatile Organic Compounds (VOC): 0.73 lb/hr
8.80 lb/day
1.06 ton/yr

Bromine Compounds (Toxic): 0.004 lb/hr
8.00 lb/yr

Hydrazine (Toxic): 0.003 lb/hr
8.00 lb/yr

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134125 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134125	Chemical Mix Room

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Chemical Mix Room, including following equipment:

- A. Chemical mixing equipment;
- B. Chemical storage equipment;
- C. Up to six additional Vacuum Impregnation Chambers;
- D. Blue M furnace rated at 700°C;
- E. Two, 2.5' by 5' back draft wall registers;
- F. One ventilation and abatement line including;
 - 1. Four 24-in X 24-in X 2-in, poly cotton filters with 27 ft² filter area and 12.6 air-to-media ratio;
 - 2. Filter change gage serving cotton filters;
 - 3. Four, 24-in X 24-in X 4-in, micro glass filters with 127 ft² filter area and 59.25 air-to-media ratio;
 - 4. Filter change gage serving micro glass filters;
 - 5. Forty-eight, coconut shell granules activated carbon beds with 192 ft² filter area; and
 - 6. 7.5 hp fan rated at 5,000-acfm.

OPERATIONAL CONDITIONS:

- 1. Back draft wall registers shall provide adequate ventilation for weighing and mixing operations. (Rule 210.1)
- 2. Chemical mixing shall be conducted in front of back draft wall registers. (Rule 210.1)
- 3. Chemicals shall be kept in closed containers when not in use. (Rule 210.1)
- 4. Operating hours shall not exceed 2190 hours/year without prior District approval. (Rule 210.1)
- 5. Chemical usage shall not exceed 1,500 pounds per day without prior District approval. (Rule 210.1)
- 6. Ventilation systems shall be in operation when associated equipment is operated. (Rule 210.1)
- 7. Ducting shall be maintained leak-free. (Rules 209 and 210.1)
- 8. Filtration system shall be in operation when associated equipment is operated. (Rule 210.1)
- 9. Magnahelic gages shall be checked weekly for indications of filters change. (Rules 209 and 210.1)
- 10. Filters shall be changed when necessary. (Rules 209 and 210.1)
- 11. Activated carbon beds shall be connected when associated equipment is operated. (Rule 210.1)
- 12. Applicant shall replace activated carbon upon no more than 92.5% carbon consumption. (Rule 210.1)
- 13. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with application under which this permit is issued. (Rule 210.1)
- 14. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)

Emission Unit 0134125 Permit Conditions

15. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
16. There shall be no detectable odors at or beyond property boundary. (Rule 419)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Volatile Organic Compounds (VOC):

0.06 lbm/day

0.01 ton/yr

Emission Unit 0134126 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134126	Composite Unloading and Machining Operation

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Composite Unloading and Machining Operation, including following equipment:

- A. Hand sanding equipment including one downdraft table;
- B. One Plasma Cam Cutting Table;
- C. Planers;
- D. Band saws;
- E. Floor sweep; and
- F. One dust collector rated at 4200 cfm, 20 wg and 70°F equipped with 12 cellulose/polyester filters with 3,300 square feet filter area and 1.27:1 air-to-media ratio, automatic periodic pulse cleaning mechanism and 15 hp motor.

OPERATIONAL CONDITIONS:

- 1. Exhaust particulate matter concentration from dust collector shall not exceed 0.01 grains per standard cubic feet. (Rule 210.1 BACT)
- 2. Dust collection system shall be equipped with an adequate number of pick-up points. (Rule 210.1)
- 3. Dust collector shall be equipped with operational differential pressure indicator showing filter pressure drop. (Rule 210.1)
- 4. Visible emissions shall not exceed 5% opacity or Ringelmann $\frac{1}{4}$ except for three minutes in any one hour. (Rule 210.1 BACT)
- 5. Dust collection system shall be in operation when associated equipment is operated. (Rule 210.1)
- 6. Ducting shall be maintained leak-free. (Rules 209 and 210.1)
- 7. All volatile organic compound-containing materials and wastes shall be stored in nonabsorbent, non-leaking containers and kept closed at all times except when filling or emptying. (Rule 210.1).
- 8. Material collected in dust collector shall be disposed of in manner preventing entrainment in atmosphere. (Rules 209 and 210.1)
- 9. Equipment shall be maintained according to manufacturer's specifications to ensure compliance with emissions limitations. (Rules 209 and 210.1)
- 10. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with application under which this permit is issued. (Rule 210.1)
- 11. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)
- 12. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
- 13. There shall be no detectable odors at or beyond property boundary. (Rule 419)

Emission Unit 0134126 Permit Conditions

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384.
(Rule 208.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter:

8.64 lbm/day (of PM₁₀)

1.58 ton/yr (of PM₁₀)

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Emission Unit 0134128 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134128	Composite Plate Operation ^[MH1]

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Composite Plate Operation, including following equipment:

- A. Hot press #2, rated at 1000°C and 100 tons;
- B. Hot press #3, rated at 1000°C and 400 tons;
- C. Hot press #4, rated at 1000°C and 2300 tons;
- D. Furnace #4 rated at 2000°C;
- E. Hot press furnace rated up to 2500°C and 25kVA;
- F. Three Electric Furnaces rated at 1200 °C
- G. Hot Press Furnace (shared with PTO 0134131);
- H. Oven rated up to 1100°C (shared with PTO 0134131);
- I. Furnace rated up to 1100°C (shared with PTO 0134131);
- J. Up to ten additional hot presses rated up to 1500°C and 2300 tons;
- K. Up to ten additional furnaces/ovens rated up to 3000°C;
- L. Up to 6 Carbon and/or Silicon Carbide (SiC) Chemical Vapor Deposition (CVD) Furnaces.
- M. One common ventilation and abatement line equipped with 8 dual-mode afterburners
 1. Four, 24-in. X 24-in X 2-in, poly cotton filters with 27-sq.ft. filter area;
 2. Four, 24-in X 24-in X 4-in, micro glass filters with 127-sq.ft. filter area;
 3. Filter change gage serving micro glass and cotton filters;
 4. 48, coconut shell granules activated carbon filter beds with 192-sq.ft. filter area, and total filter weight of 426 pounds; and
 5. 7.5-hp fan rated at 6,400-acfm serving composite plate production ventilation.
- N. Ventilation bypass line connected to PTO 0134115 ventilation and Abatement system

OPERATIONAL CONDITIONS:

1. Ventilation system shall be equipped with adequate number of pick-up points. (Rule 210.1)
2. All ovens shall be electrically powered. (Rule 210.1)
3. Phenolic resins and Synthetic or Prefabricated Pitch materials may be processed in hot presses and furnaces in accordance to the information provided in the application. The District must be notified in writing at least 15 days before new materials are added. (Rule 210.1)
4. Applicant shall develop an exhaust stack grab sampling protocol and make it available to the District upon request. The test protocol shall be updated when new materials are added. (Rule 210.1)
5. Stack/exhaust sampling shall be performed upon District's request and sampling results reported to the District within 30 days of sampling. (Rule 210.1)
6. Maximum mass processed during simultaneous usage of hot presses and furnaces shall not exceed 1,000 lb/day without prior District approval. (Rule 210.1)
7. Ventilation systems shall be in operation when associated equipment is operated. (Rule 210.1)

Emission Unit 0134128 Permit Conditions

8. All piping, ducting, and connections shall be leak-tight and shall have no visible emissions. (Rule 210.1)
9. Filtration system shall be in operation when associated equipment is operated. (Rule 210.1)
10. Magnahelic gages shall be checked weekly for indications of filters change. (Rules 209 and 210.1)
11. Filters shall be changed when necessary. (Rules 209 and 210.1)
12. Activated carbon beds shall be connected when associated equipment is operated. (Rule 210.1)
13. Applicant shall replace activated carbon prior to "break-through"; after approximately 92.5% of carbon has been consumed. (Rules 209 and 210.1)
14. Visible emissions shall be limited to 10% opacity except for three minutes in any one-hour. (Rule 210.1)
15. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with application under which this permit is issued. (Rule 210.1)
16. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)
17. All VOC containing materials and wastes shall be stored in non-absorbent, non-leaking containers kept closed at all times except when filling or emptying. (Rule 210.1)
18. Waste materials and/or residue shall be managed in compliance with California Federal requirements applicable to solid wastes, hazardous wastes, or recyclable materials. (Rule 210.1)
19. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
20. There shall be no detectable odors at or beyond property boundary. (Rule 419)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with any emission limitations shall be verified, within 60 days of District request. Test results shall be submitted to District within 30 days after test completion. (Rule 108.1 and 210.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

<u>Volatile Organic Compounds (VOC):</u>	3.96 lb/hr
(as defined in Rule 210.1)	59.5 lb/day
	10.86 ton/yr

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134131 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134131	Ceramic Polymer Processing ^[MH2]

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Ceramic Polymer Processing, including following equipment:

- A. Graphite furnace (Shared with PTO 0134128);
- B. Furnace rated at 1100°C (Shared with PTO 0134128);
- C. Oven rated at 1100°C (Shared with PTO 0134128);
- D. Up to ten additional furnaces rated up to 3000°C; and
- E. Pulse Jet Cartridge Dust Collector serving the hot press furnace, furnace and ovens.

OPERATIONAL CONDITIONS:

1. Exhaust particulate matter concentration from dust collector shall not exceed 0.01 grains per standard cubic feet. (Rule 210.1 BACT)
2. Dust collection system shall be equipped with an adequate number of pick-up points. (Rule 210.1)
3. Dust collector shall be equipped with operational differential pressure indicator showing filter pressure drop. (Rule 210.1)
4. Visible emissions shall not exceed 5% opacity or Ringelmann ¼ except for three minutes in any one hour. (Rule 210.1 BACT)
5. Phenolic resins and Pre-ceramic Polymers may be processed in process equipment in accordance to the information provided in the application. (Rule 210.1)
6. The District must be notified in writing at least 15 days before new materials are added. Maximum mass processed during ceramic polymer processing impregnation shall not exceed 50 lb/day without prior District approval. (Rule 210.1)
7. Applicant shall develop an exhaust stack grab sampling protocol and make it available to the District upon request. The test protocol shall be updated when new materials are added. Stack/exhaust sampling shall be performed upon District's request and sampling results reported to the District within 30 days of sampling. (Rule 210.1)
8. Dust collector and ventilation, filtration system shall be utilized when associated equipment is operated. (Rule 210.1)
9. Ducting shall be maintained leak-free. (Rule 210.1)
10. Magnahelic gages shall be checked weekly for indications of filters change. (Rule 210.1)
11. Filters shall be changed when necessary. (Rule 210.1)
12. Material collected in dust collector shall be disposed of in manner preventing entrainment in atmosphere. (Rules 209 and 210.1)
13. Equipment shall be maintained according to manufacturer's specifications to ensure compliance with emissions limitations. (Rules 209 and 210.1)

Emission Unit 0134131 Permit Conditions

15. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with application under which this permit is issued. (Rule 210.1)
15. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)
16. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
17. There shall be no detectable odors at or beyond property boundary. (Rule 419)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with any emission limitations shall be verified, within 60 days of District request. Test results shall be submitted to District within 30 days after test completion. (Rule 108.1 and 210.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter:

0.06 lbm/day (of PM₁₀)

0.01 ton/yr (of PM₁₀)

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134132 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134132	Separate Area 1-20 Into Different Areas, 1-30-A and 1-30B

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Separate Area 1-20 Into Different Areas, 1-30-A and 1-30B, including following equipment:

The following items were formerly listed in Permit No. 0134096

- A. 11 laboratory hoods;
- B. 1 canopy hood;
- C. 4 telescopic arms with plastic laboratory hoods;
- D. 1 strand burner;
- E. 1 environmental chamber;
- F. 5 convection ovens;
- G. Shifting equipment;
 - a. Ro-tap;
 - b. Plexiglas Box; and
 - c. Explosion rated Shop Vac vacuum;
- H. 1-gallon mixer;
- I. Two 1-pint mixers;
- J. One ¼-pint mixer;
- K. One 5-gallon mixer;
- L. One 2-gallon mixer;
- M. Fluid energy mill;
- N. Test Pad 44;
- O. Dip Tank;
- P. Machine shop (to include equipment similar to but not limited to the following);
 - a. Drills;
 - b. Presses;
 - c. Sanders;
 - d. Saws;
 - e. Lathes;
 - f. Welders;
- Q. Test Pad X.

The following items are listed in Permit No. 0134108. The equipment will be relocated in the future but applicant has requested listing the blower and testers on both permits for internal management purposes only.

Emission Unit 0134132 Permit Conditions

(Permit Exempt: Future Relocation of Equipment from Building 8582 to Building 8475)

- R. Appleton Electronics ¾ hp blower, type EFDC serving electrostatic discharge tester;
- S. Drop weight tester;
- T. Friction testers, and
- U. Henkin “time to explosion” apparatus. Future Relocation of Equipment from Building 8582 to Building 8475).

OPERATIONAL CONDITIONS:

1. Particulate matter emissions from any single source operation except solid rocket testing shall be no more than 0.1 gr/scf. (Rule 404.1)
2. Visible emissions from cyclone collector shall not exceed 20% opacity. (Rule 401)
3. If solvent flow is utilized, only continuous fluid stream (not fine, atomized, or shower type spray) shall be used at pressure that does not cause liquid solvent to splash outside of solvent container. (Rule 410.3)
4. No porous or absorbent materials such as cloth, leather, wood, or rope shall be cleaned. (Rule 410.3)
5. No solvent shall be stored or disposed, including waste solvent and solvent residues, in such manner to cause or allow its evaporation into atmosphere. (Rule 210.1)
6. Waste solvent and waste solvent residues shall be managed in compliance with California and Federal requirements applicable to solid wastes, hazardous wastes, or recyclable materials. (Rule 410.3)
7. Solvent agitation, where necessary, shall be achieved only by pump circulation, mixer, or ultrasonic. Air agitation shall not be used. (Rule 410.3)
8. Equipment shall be maintained according to manufacturer's specifications. (Rules 210.1 and 209)
9. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rule 210.1)
10. Emission from use of this equipment shall not cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

SPECIAL CONDITION:

Owner/operator shall submit an Authority to Construct application for equipment changes at Area 1-130B.

Emission Unit 0134134 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134132	Experimental Furnace

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Experimental Furnace, including following equipment:

- A. Experimental Furnace;
- B. Ventilation and abatement line including:
 - 1. Nine American Filtration Systems, Model AmAir 300X, 24" by 24" by 2", poly cotton filters with 27 ft² filter area and 12.6 air-to-media ratio;
 - 2. Magnahelic filter change gage serving cotton filters;
 - 3. Nine American Filtration Systems, Model VeriCell II, 24" by 24" by 4", micro glass filters with 127 ft² filter area and 59.25 air-to-media ratio;
 - 4. Magnahelic filter change gage serving micro glass filters;
 - 5. One hundred and eight American Filtration, Model CC-60, coconut shell granules activated carbon beds with 432 ft² filter area and total filter weight of 959 pounds;
 - 6. 30 hp fan rated at 20,000 acfm;
 - 7. 1.5 hp fan rated at 350-acfm serving ventilation line; and
 - 8. Two V 2000 activated carbon beds, each with 66 ft³ of activated carbon and measuring 85" high by 45.5" diameter.

OPERATIONAL CONDITIONS:

- 1. The applicant shall use no more than 50 pounds per day of materials for up to ten new materials in the Experimental Furnace. The District must be notified in writing at least 15 days before new materials are added. (Rule 210.1)
- 2. The applicant shall develop an exhaust grab sampling protocol and make it available to the District upon request. Stack/exhaust sampling shall be performed upon District's request and sampling results reported to the District within 30 days of sampling. (Rule 210.1)
- 3. Visible emissions shall be limited to 10% opacity except for three minutes in any one-hour. (Rule 210.1 BACT)
- 4. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with application under which this permit is issued. (Rule 210.1)
- 5. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 209 and 210.1)
- 6. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
- 7. There shall be no detectable odors at or beyond property boundary. (Rule 419)

Emission Unit 0134134 Permit Conditions

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with any emission limitations shall be verified, within 60 days of District request. Test results shall be submitted to District within 30 days after test completion. (Rule 108.1 and 210.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Volatile Organic Compounds:

0.03 lbm/day (of PM₁₀)

0.05 ton/yr (of PM₁₀)

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

External Combustion

DRAFT

Emission Unit 0134050 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134050	Steam Generator #2

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #2, including following equipment:

One 31.2 MMBtu/hr gaseous fuel steam generator #2 with low NO_x burner and forced draft flue gas recirculation.

OPERATIONAL CONDITIONS:

1. Steam generator shall be equipped with forced draft flue gas recirculation and low NO_x burner according to application for which this Permit to Operate is issued. (Rule 209)
2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
3. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 409)
4. Sulfur compound emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
5. Operator shall comply with applicable monitoring, testing, and recordkeeping requirements of Rule 425.2. (Rule 425.2)
6. Operator shall maintain annual records of fuel use. (Rule 425.2)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (of PM₁₀):

0.43 lbm/hr
10.26 lbm/day
1.87 ton/yr

Sulfur Oxides (as SO₂):

0.51 lbm/hr
12.28 lbm/day
2.24 ton/yr

Emission Unit 0134050 Permit Conditions

Oxides of Nitrogen (as NO₂):

2.81 lbm/hr (Rule 425.2)

67.39 lbm/day

12.30 ton/yr

Volatile Organic Compounds (VOC):

0.09 lbm/hr (as defined in Rule 210.1)

2.08 lbm/day

0.38 ton/yr

Carbon Monoxide:

1.15 lbm/hr

27.71 lbm/day

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134051 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134051	Steam Generator #1

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #1, including following equipment:

One 31.2 MMBtu/hr gaseous fuel steam generator #1 with low NO_x burner and forced draft flue gas recirculation.

OPERATIONAL CONDITIONS:

1. Steam generator shall be equipped with forced draft flue gas recirculation and low NO_x burner according to application for which this Permit to Operate is issued. (Rule 209)
2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
3. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 409)
4. Sulfur compound emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
5. Operator shall comply with applicable monitoring, testing, and recordkeeping requirements of Rule 425.2. (Rule 425.2)
6. Operator shall maintain annual records of fuel use. (Rule 425.2)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (of PM₁₀):

0.43 lbm/hr
10.26 lbm/day
1.87 ton/yr

Sulfur Oxides (as SO₂):

0.51 lbm/hr
12.28 lbm/day
2.24 ton/yr

Emission Unit 0134051 Permit Conditions

Oxides of Nitrogen (as NO₂):

2.81 lbm/hr (Rule 425.2)

67.39 lbm/day

12.30 ton/yr

Volatile Organic Compounds (VOC):

0.09 lbm/hr (as defined in Rule 210.1)

2.08 lbm/day

0.38 ton/yr

Carbon Monoxide:

1.15 lbm/hr

27.71 lbm/day

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134065 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134065	Steam Generator #4

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #4, including following equipment:

One 20.9 MMBtu/hr Clayton Industries, Model EG504-3-LNB, propane fueled steam generator with low NO_x burner.

OPERATIONAL CONDITIONS:

1. Steam generator shall be equipped with low NO_x burner and be certified by California Air Resources Board under Executive Order G-96-029-012-A. (Rules 209 and 210.1)
2. Visible emissions shall be less than 5% opacity or Ringelmann No. 3 except for not more than three minutes in any one hour. (Rule 210.1 BACT Requirement)
3. Exhaust gas particulate matter concentration shall be no more than 0.02 gr/scf. (Rule 210.1 BACT Requirement)
4. Operator shall comply with applicable monitoring, testing, and recordkeeping requirements of Rule 425.2. (Rule 425.2)
5. Operator shall maintain records of hours of operation. (Rule 425.2)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (PM₁₀):

0.02 gr/scf
0.29 lbm/hr
6.96 lbm/day
1.27 ton/yr

Sulfur Oxides (as SO₂):

0.01 lbm/hr
0.24 lbm/day
0.04 ton/yr

Emission Unit 0134065 Permit Conditions

Oxides of Nitrogen (as NO₂):

0.76 lbm/hr (30 ppmv)

18.24 lbm/day

3.33 ton/yr

Volatile Organic Compounds (VOC):

0.06 lbm/hr (as defined in Rule 210.1)

1.44 lbm/day

0.26 ton/yr

Carbon Monoxide:

4.64 lbm/hr

111.36 lbm/day

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134066 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134066	Steam Generator #1

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #1, including following equipment:

One 20.9 MMBtu/hr, propane fueled steam generator with low NO_x burner.

OPERATIONAL CONDITIONS:

1. Steam generator shall be equipped with low NO_x burner and be certified by California Air Resources Board under Executive Order G-96-029-012-A. (Rules 209 and 210.1)
2. Visible emissions shall be less than 5% opacity or Ringelmann No. 3 except for not more than three minutes in any one hour. (Rule 210.1 BACT Requirement)
3. Exhaust gas particulate matter concentration shall be no more than 0.02 gr/scf. (Rule 210.1 BACT Requirement)
4. Operator shall comply with applicable monitoring, testing, and record keeping requirements of Rule 425.2. (Rule 425.2)
5. Operator shall maintain records of hours of operation. (Rule 425.2)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (PM₁₀):

0.02 gr/scf
0.29 lbm/hr
6.96 lbm/day
1.27 ton/yr

Sulfur Oxides (as SO₂):

0.01 lbm/hr
0.24 lbm/day
0.04 ton/yr

Emission Unit 0134066 Permit Conditions

Oxides of Nitrogen (as NO₂):

0.76 lbm/hr (30 ppmv)

18.24 lbm/day

3.33 ton/yr

Volatile Organic Compounds (VOC):

0.06 lbm/hr (as defined in Rule 210.1)

1.44 lbm/day

0.26 ton/yr

Carbon Monoxide:

4.64 lbm/hr

111.36 lbm/day

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134067 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134067	Steam Generator #2

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #2, including following equipment:

One 20.9 MMBtu/hr, propane fueled steam generator with low NO_x burner.

OPERATIONAL CONDITIONS:

1. Steam generator shall be equipped with low NO_x burner and be certified by California Air Resources Board under Executive Order G-96-029-012-A. (Rules 209 and 210.1)
2. Visible emissions shall be less than 5% opacity or Ringelmann No. 3 except for not more than three minutes in any one hour. (Rule 210.1 BACT Requirement)
3. Exhaust gas particulate matter concentration shall be no more than 0.02 gr/scf. (Rule 210.1 BACT Requirement)
4. Operator shall comply with applicable monitoring, testing, and recordkeeping requirements of Rule 425.2. (Rule 425.2)
5. Operator shall maintain records of hours of operation. (Rule 425.2)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (PM₁₀):

0.02 gr/scf
0.29 lbm/hr
6.96 lbm/day
1.27 ton/yr

Sulfur Oxides (as SO₂):

0.01 lbm/hr
0.24 lbm/day
0.04 ton/yr

Emission Unit 0134067 Permit Conditions

Oxides of Nitrogen (as NO₂):

0.76 lbm/hr (30 ppmv)

18.24 lbm/day

3.33 ton/yr

Volatile Organic Compounds (VOC):

0.06 lbm/hr (as defined in Rule 210.1)

1.44 lbm/day

0.26 ton/yr

Carbon Monoxide:

4.64 lbm/hr

111.36 lbm/day

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134068 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134068	Steam Generator #3

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #3, including following equipment:

One 20.9 MMBtu/hr, propane fueled steam generator with low NO_x burner.

OPERATIONAL CONDITIONS:

1. Steam generator shall be equipped with low NO_x burner and be certified by California Air Resources Board under Executive Order G-96-029-012-A. (Rules 209 and 210.1)
2. Visible emissions shall be less than 5% opacity or Ringelmann No. 3 except for not more than three minutes in any one hour. (Rule 210.1 BACT Requirement)
3. Exhaust gas particulate matter concentration shall be no more than 0.02 gr/scf. (Rule 210.1 BACT Requirement)
4. Operator shall comply with applicable monitoring, testing, and recordkeeping requirements of Rule 425.2. (Rule 425.2)
5. Operator shall maintain records of hours of operation. (Rule 425.2)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (PM₁₀):

0.02 gr/scf
0.29 lbm/hr
6.96 lbm/day
1.27 ton/yr

Sulfur Oxides (as SO₂):

0.01 lbm/hr
0.24 lbm/day
0.04 ton/yr

Emission Unit 0134068 Permit Conditions

Oxides of Nitrogen (as NO₂):

0.76 lbm/hr (30 ppmv)

18.24 lbm/day

3.33 ton/yr

Volatile Organic Compounds (VOC):

0.06 lbm/hr (as defined in Rule 210.1)

1.44 lbm/day

0.26 ton/yr

Carbon Monoxide:

4.64 lbm/hr

111.36 lbm/day

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Emission Unit 0134070 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134070	Steam Generator #101

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #101, including following equipment:

One propane-fueled 8.5 MMBtu/hr, steam generator equipped with ultra low-NOx burner.

OPERATIONAL CONDITIONS:

1. Boiler shall be equipped with appropriate provisions to monitor operational parameters, i.e. oxygen content. (Rules 210.1 and 425.2)
2. Hours of operation shall not exceed 3456 hours per year without prior District approval. (Rule 210.1)
3. Steam generator shall be fired exclusively on commercial grade propane or PUC quality natural gas. (Rule 210.1 BACT)
4. Operation shall exhibit no visible emissions. (Rule 210.1 BACT)
5. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 409)
6. If annual heat input is less than 90,000 therms than owner/ operator shall comply with the NOx minimization procedures:
 - a. Tune unit as least once per year and operate unit in a manner maintaining stack gas oxygen at no more than 3.00 percent by volume; or
 - b. Operate unit with an automatic stack gas oxygen trim system set at 3.00 percent by volume on dry basis. (Rule 425.2)
7. Compliance testing for units with greater than 90,000 therms per year of heat input shall be performed once every twelve months. If compliance with Rule 425.2 emission limits has been demonstrated for two consecutive years, than compliance testing, if desired, can be performed once every 36 months. If compliance with Rule 425.2 emission limits has not been demonstrated for a tri-annual test, then testing shall be revert back to once every twelve months and a new two year compliance demonstration period shall begin starting on the date of a successful compliance demonstration.
8. There shall be no odors detectable at or beyond property boundary. (Rule 419)
9. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)
10. Equipment shall be maintained and operated according to manufacturer's specifications to ensure compliance with emissions limitations. (Rules 210.1 and 209)
11. Operator shall comply with applicable monitoring, testing, record keeping and administrative requirements of Rule 425.2. (Rule 425.2)
12. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rules 210.1 and 425.2)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code, Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter:

0.06 lbm/hr (of PM₁₀)
1.42 lbm/day (of PM₁₀)
0.10 ton/yr (of PM₁₀)

Sulfur Oxides (as SO₂):

0.01 lbm/hr
0.12 lbm/day
0.01 ton/yr

Oxides of Nitrogen (as NO₂):

25 ppm @ 3% O₂
0.25 lbm/hr
5.93 lbm/day
0.43 ton/yr

Volatile Organic Compounds (VOC):

0.04 lbm/hr
1.03 lbm/day
0.07 ton/yr

Carbon Monoxide:

150 ppm @ 3%O₂
0.90 lbm/hr
21.62 lbm/day
1.56 ton/yr

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Emission Unit 0134070 Permit Conditions

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

SPECIAL CONDITIONS:

No emission reduction credits shall be obtained for shutdown unit PTO0134070A. (Rules 210.1 and 210.3)

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Emission Unit 0134071 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134071	Steam Generator #103

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #103, including following equipment:

One 8.5 MMBtu/hr, steam generator/vacuum chamber #103.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 409)
3. Sulfur compound emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
4. Unit shall comply with Rule 425.2 NO_x minimization tuning procedure or shall operate in manner maintaining stack gas oxygen content at no more than 3% by volume. (Rule 425.2)
5. If annual heat input exceeds 90,000 therms (8.6 mmcf) in one or more of three preceding years, in lieu of complying with NO_x minimization tuning procedure or stack gas oxygen limit of 3%, emissions shall not exceed following:

Oxides of Nitrogen:

0 ppmv (gaseous fuel)

115 ppmv (liquid fuel)

Carbon Monoxide:

400 ppmv

6. Operator shall comply with applicable monitoring, testing, and record keeping requirements of Rule 425.2. (Rule 425.2)
7. Operator shall maintain annual records of fuel use. (Rule 425.2)

Emission Unit 0134072 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134072	Steam Generator #102

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Steam Generator #102, including following equipment:

One 8.5 MMBtu/hr, steam generator/vacuum chamber #102.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 409)
3. Sulfur compound emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
4. Unit shall comply with Rule 425.2 NO_x minimization tuning procedure or shall operate in manner maintaining stack gas oxygen content at no more than 3% by volume. (Rule 425.2)
5. If annual heat input exceeds 90,000 therms (8.6 mmcf) in one or more of three preceding years, in lieu of complying with NO_x minimization tuning procedure or stack gas oxygen limit of 3%, emissions shall not exceed following:

Oxides of Nitrogen:

70 ppmv (gaseous fuel)

115 ppmv (liquid fuel)

Carbon Monoxide:

400 ppmv

6. Operator shall comply with applicable monitoring, testing, and recordkeeping requirements of Rule 425.2. (Rule 425.2)
7. Operator shall maintain annual records of fuel use. (Rule 425.2)

Emission Unit 0134075 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134075	Propane Vaporizer

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Propane Vaporizer, including following equipment:

Two burners, aggregate heat input 7.6 MMBtu/hr.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. Sulfur compounds emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)

Internal Combustion^[MH3]

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Emission Unit 0134053 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134053	Emergency Use Piston Engine with Generator

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Emergency Use Piston Engine with Generator, including following equipment:

One 830 bhp Diesel, emergency use piston engine powering electrical generator.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. Sulfur compounds emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
4. Operator shall maintain record of annual hours of operation for minimum of two years. (Rule 210.1 Offset Exemption)
5. Engine operation shall be no more than 200 hours per year. (Rule 210.1 Offset Exemption)

Emission Unit 0134054 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134054	Emergency Use Piston Engine with Generator

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Emergency Use Piston Engine with Generator, including following equipment[MH4]:

One 425 bhp, emergency use piston engine powering electrical generator.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. Sulfur compounds emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
4. Operator shall maintain record of annual hours of operation for minimum of two years. (Rule 210.1 Offset Exemption)
5. Engine operation shall be no more than 200 hours per year. (Rule 210.1 Offset Exemption)

Emission Unit 0134055 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134055	Emergency Use Piston Engine with Firewater Pump

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Emergency Use Piston Engine with Firewater Pump, including following equipment[MH5]:

One 231 bhp, emergency use piston engine powering firewater pump.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. Sulfur compounds emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
4. Operator shall maintain record of annual hours of operation for minimum of two years. (Rule 210.1 Offset Exemption)
5. Engine operation shall be no more than 200 hours per year. (Rule 210.1 Offset Exemption)

Emission Unit 0134079 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134079	Emergency Use Piston Engine with Generator

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Emergency Use Piston Engine with Generator, including following equipment:

One 440 bhp, turbocharged, aftercooled emergency use diesel piston engine with injection timing retarded 4 degrees relative to standard powering 315 kw generator.

OPERATIONAL CONDITIONS:

1. Engine operation shall be no more than 200 hours per year as demonstrated by maintenance of record of hour meter readout. (Rule 210.1)
2. Unit shall be fired on diesel fuel meeting CARB specifications. (Rule 404.1)
3. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
4. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
5. Sulfur compounds emissions shall be no more than 0.2% (2,000 ppmv) calculated as sulfur dioxide (SO₂). (Rule 407)
6. Record of annual engine use shall be submitted annually with payment of permit fees. (Rule 210.1 Offset Exemption Requirement)

EMISSION LIMITS:

Maximum emission rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter:

- 0.1 grains/scf @ 12% CO₂ at standard conditions (of PM) (Rule 409)
- 0.60 grams/hp-hr (of PM₁₀)
- 0.58 lb/hr (of PM₁₀)

Sulfur Oxides (as SO₂):

- 0.2% by volume (Rule 407)
- 0.19 grams/hp-hr
- 0.18 lb/hr

Oxides of Nitrogen (as NO₂):

- 5.30 grams/hp-hr
- 5.14 lb/hr

Emission Unit 0134079 Permit Conditions

Volatile Organic Compounds (VOC):

1.50 gm/hp-hr (as defined in Rule 210.1)

1.46 lb/hr

Carbon Monoxide:

2.20 grams/hp-hr

2.13 lb/hr

(Emission limits established pursuant to Rule 210.1, unless otherwise noted.)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

Rocket Test Stand

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Emission Unit 0134086 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134086	Rocket Test Stand 1-A

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Test Stand 1-A, including following equipment:

- A. Test stand for rocket motor testing using liquid oxygen/hydrogen or liquid oxygen/kerosene fuels; and
- B. Propane-assisted flare.

OPERATIONAL CONDITIONS:

- 1. Particulate emission shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 404.1)
- 2. Visible emissions shall not be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 3. Modification of equipment or usage shall require application for Authority to Construct. (Rule 209)
- 4. Records including dates and duration of usage shall be kept and made available to District upon request. (Rule 209)

Emission Unit 0134087 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134087	Rocket Test Stand 2-A

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Test Stand 2-A, including following equipment:

- A. Test stand for rocket motor testing using liquid oxygen/hydrogen or liquid oxygen/kerosene fuels; and
- B. Propane-assisted flare.

OPERATIONAL CONDITIONS:

- 1. Particulate emission shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 404.1)
- 2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 3. Modification of equipment or usage shall require application for Authority to Construct. (Rule 209)
- 4. Records including dates and duration of usage shall be kept and made available to District upon request. (Rule 209)

Emission Unit 0134088 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134088	Rocket Test Stand 1-B

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Test Stand 1-B, including following equipment:

Test stand for rocket motor testing using liquid oxygen/hydrogen or oxygen/kerosene fuels.

OPERATIONAL CONDITIONS:

1. Particulate emission shall be no more than 0.1 gr/scf calculated to 12% CO₂. (Rule 404.1)
2. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
3. Modification of equipment or usage shall require application for Authority to Construct. (Rule 209)
4. Records including dates and duration of usage shall be kept and made available to District upon request. (Rule 209)

Emission Unit 0134089 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134089	Rocket Test Stand 1-C

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Test Stand 1-C, including following equipment:

- A. Test stand for rocket motor testing using solid rocket propellant, liquid oxygen/hydrogen, or liquid oxygen/kerosene fuels; and
- B. Propane-assisted flare.

OPERATIONAL CONDITIONS:

- 1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 3. Modification of equipment or usage shall require application for Authority to Construct. (Rule 210.1)
- 4. Records including dates and duration of usage shall be kept and made available to District upon request. (Rule 209)

Emission Unit 0134090 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134090	Rocket Test Stand 1-D

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Test Stand 1-D, including following equipment:

- A. Test stand for rocket motor testing using solid rocket propellant, liquid oxygen/hydrogen, or liquid oxygen/kerosene fuels; and
- B. Propane-assisted flare.

OPERATIONAL CONDITIONS:

- 1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
- 2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
- 3. Modification of equipment or usage shall require application for Authority to Construct. (Rule 209)
- 4. Records including dates and duration of usage shall be kept and made available to District upon request. (Rule 209)

Emission Unit 0134091 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134091	Rocket Test Stand 1-E

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Test Stand 1-E, including following equipment:

Building is used for studying small space vehicle flight characteristics. Vehicles have liquid rocket engines fueled by hydrazine/MMH and nitrogen tetroxide or solid propellants. Test stand also used for testing liquid hydrogen/oxygen, oxygen/kerosene rocket engines, and BATES motors.

OPERATIONAL CONDITIONS:

1. Visible emissions shall be less than 20% opacity or Ringelmann No. 1 except for not more than three minutes in any one hour. (Rule 401)
2. Exhaust gas particulate matter concentration shall be no more than 0.1 gr/scf (0.2 gr/scf if installed before 4/18/72). (Rule 404.1)
3. Modification of equipment or usage shall require application for Authority to Construct. (Rule 209)
4. Records including dates and duration of usage shall be kept and made available to District upon request. (Rule 209)

Emission Unit 0134133 Permit Conditions

<u>Facility Number</u>	<u>Emissions Unit</u>	<u>Description of Source</u>
9002	0134133	Rocket Engine Testing Operation

Emission Unit Equipment Description/Permit Conditions

Federally Enforceable Conditions

EQUIPMENT DESCRIPTION: Rocket Engine Testing Operation, including following equipment:

Rocket Engine Test Stand 1D with test pad including engine mounts, scrubber system, and remote data link-up.

OPERATIONAL CONDITIONS:

1. Visible emissions from test engine exhaust shall not equal or exceed 20% opacity or Ringelmann No. 1 for more than 3 minutes in any one hour. (Rule 401)
2. Fuels and oxidizers utilized for this rocket testing operations shall be limited to hypergolic fuels including: Monomethylhydrazine (MMH), Nitrous Oxide (N₂O), Ammonia (NH₃), Unsymmetrical dimethylhydrazine (UDMH), and Hydrazine . (Rule 210.1)
3. Total number of rocket engine tests, per calendar year, shall not exceed 60 without prior District approval. (Rule 210.1)
4. For each test, applicant shall maintain record of each engine tested, rated thrust of each engine, amount of fuel and oxidizer used, and duration of each test. (Rule 210.1)
5. Equipment shall be maintained according to manufacturer's specifications to ensure compliance with emissions limitations. (Rules 210.1)
6. Fuel and Oxidizer Scrubbers systems shall be in operation when the equipment is in use. (Rule 210.1)
7. Minimum efficiency of fuel and oxidizer scrubbers shall be 90-percent. (Rule 210.1 BACT Requirement)
8. Any defective component of the fuel or oxidizer systems resulting in the release of fuel or oxidizer emissions shall be immediately repaired, replaced, or adjusted as necessary in a reasonable, safe, and timely manner. (Rule 210.1)
9. Modification of equipment or usage shall require application for Authority to Construct. (Rule 210.1)
10. Compliance with all operational conditions shall be verified by appropriate record keeping, including records of operational data needed to demonstrate compliance. Such records shall be kept on site in readily available format. (Rule 210.1)
11. No emission resulting from use of this equipment shall cause injury, detriment, nuisance, annoyance to or endanger comfort, repose, health, or safety of any considerable number of persons or public. (Rule 419 and CH&SC, Sec 41700)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

Emission Unit 0134133 Permit Conditions

COMPLIANCE TESTING REQUIREMENTS:

Should inspection reveal conditions indicative of non-compliance, compliance with test engine emission limitations shall be verified, within 60 days of District request. (Rule 108.1)

EMISSION LIMITS:

Emissions rate of each air contaminant from this unit shall not exceed the following emissions limitations:

Loading/Unloading Operations

Oxides of Nitrogen (NO_x as NO₂):

82.97 lb/day
2.49 ton/yr

Volatile Organic Compounds (VOC):
(as defined in Rule 210.1)

44.67 lb/day
1.34 ton/yr

Ammonia (NH₃):

118.20 lb/day
7091.84 lb/yr

Hydrazine:

28.291 lb/day
1679.44 lb/yr

Rocket Engine Testing Operation:

Particulate Matter (PM₁₀):

45.00 lb/day
1.35 ton/yr

Carbon Monoxide:

2533.00 lb/day
75.99 ton/yr

Ammonia (NH₃):

2.00 lb/hr
120.00 lb/yr

(Emissions limits established pursuant to Rule 210.1 unless otherwise noted)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to District for period of three years. (Rules 209 and 210.1)

FEDERAL REGULATIONS
40 CFR 60 SUBPART A
General Provisions

Applicable provisions of 40 CFR 60 Subpart A shall apply.

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994; 62 FR 52641, Oct. 8, 1997]

Applicability

§60.1(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.
§60.1(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.
§60.1(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.
§60.1(a)(2)	Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.
§60.1(a)(3)	Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

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FEDERAL REGULATIONS
40 CFR 61 SUBPART C
National Emission Standard for Beryllium

Applicable provisions of 40 FR 61 Subpart C shall apply.

[38 FR 8826, Apr. 6, 1973, as amended at 65 FR 62151, Oct. 17, 2000]

Applicability

§61.30	<p>The provisions of this subpart are applicable to the following stationary sources:</p> <p>(a) Extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste.</p> <p>(b) Machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5 percent beryllium by weight.</p>
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Emission Standard

§61.32	<p>(a) Emissions to the atmosphere from stationary sources subject to the provisions of this subpart shall not exceed 10 grams (0.022 lb) of beryllium over a 24-hour period, except as provided in paragraph (b) of this section.</p> <p>(b) Rather than meet the requirement of paragraph (a) of this section, an owner or operator may request approval from the Administrator to meet an ambient concentration limit on beryllium in the vicinity of the stationary source of $0.01 \mu\text{g}/\text{m}^3$ ($4.37 \times 10^{-6} \text{ gr}/\text{ft}^3$), averaged over a 30-day period.</p> <p>(1) Approval of such requests may be granted by the Administrator provided that:</p> <p>(i) At least 3 years of data is available which in the judgment of the Administrator demonstrates that the future ambient concentrations of beryllium in the vicinity of the stationary source will not exceed $0.01 \mu\text{g}/\text{m}^3$ ($4.37 \times 10^{-6} \text{ gr}/\text{ft}^3$), averaged over a 30-day period. Such 3-year period shall be the 3 years ending 30 days before the effective date of this standard.</p> <p>(ii) The owner or operator requests such approval in writing within 30 days after the effective date of this standard.</p> <p>(iii) The owner or operator submits a report to the Administrator within 45 days after the effective date of this standard which report includes the following information:</p> <p>(a) Description of sampling method including the method and frequency of calibration.</p> <p>(b) Method of sample analysis.</p> <p>(c) Averaging technique for determining 30-day average concentrations.</p>
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<p>§61.32</p>	<p>(d) Number, identity, and location (address, coordinates, or distance and heading from plant) of sampling sites.</p> <p>(e) Ground elevations and height above ground of sampling inlets.</p> <p>(f) Plant and sampling area plots showing emission points and sampling sites. Topographic features significantly affecting dispersion including plant building heights and locations shall be included.</p> <p>(g) Information necessary for estimating dispersion including stack height, inside diameter, exit gas temperature, exit velocity or flow rate, and beryllium concentration.</p> <p>(h) A description of data and procedures (methods or models) used to design the air sampling network (i.e., number and location of sampling sites).</p> <p>(i) Air sampling data indicating beryllium concentrations in the vicinity of the stationary source for the 3-year period specified in paragraph (b)(1) of this section. This data shall be presented chronologically and include the beryllium concentration and location of each individual sample taken by the network and the corresponding 30-day average beryllium concentrations.</p> <p>(2) Within 60 days after receiving such report, the Administrator will notify the owner or operator in writing whether approval is granted or denied. Prior to denying approval to comply with the provisions of paragraph (b) of this section, the Administrator will consult with representatives of the statutory source for which the demonstration report was submitted.</p> <p>(c) The burning of beryllium and/or beryllium-containing waste, except propellants, is prohibited except in incinerators, emissions from which must comply with the standard.</p>
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Stack Sampling

<p>§61.33</p>	<p>(a) Unless a waiver of emission testing is obtained under §61.13, each owner or operator required to comply with §61.32(a) shall test emissions from the source according to Method 104 of appendix B to this part or according to Method 29 of appendix A to part 60. Method 103 of appendix B to this part is approved by the Administrator as an alternative method for sources subject to §61.32(a). The emission test shall be performed:</p> <p>(1) By May 28, 2014 in the case of an existing source or a new source which has an initial startup date preceding February 27, 2014; or</p> <p>(2) Within 90 days of startup in the case of a new source which did not have an initial startup date preceding February 27, 2014.</p> <p>(b) The Administrator shall be notified at least 30 days prior to an emission test so that he may at his option observe the test.</p> <p>(c) Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any 24-hour period. Where emissions depend upon the relative frequency of operation of different types of processes, operating hours, operating capacities, or other factors, the calculation of maximum 24-hour-period emissions will be based on that combination of factors which is likely to occur during the subject period and which result in the maximum emissions.</p>
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§61.33	<p>No changes in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to the Administrator.</p> <p>(d) All samples shall be analyzed and beryllium emissions shall be determined within 30 days after the source test. All determinations shall be reported to the Administrator by a registered letter dispatched before the close of the next business day following such determination.</p> <p>(e) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.</p>
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Air Sampling

§61.34	<p>(a) Stationary sources subject to §61.32(b) shall locate air sampling sites in accordance with a plan approved by the Administrator. Such sites shall be located in such a manner as is calculated to detect maximum concentrations of beryllium in the ambient air.</p> <p>(b) All monitoring sites shall be operated continuously except for a reasonable time allowance for instrument maintenance and calibration, for changing filters, or for replacement of equipment needing major repair.</p> <p>(c) Filters shall be analyzed and concentrations calculated within 30 days after filters are collected. Records of concentrations at all sampling sites and other data needed to determine such concentrations shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.</p> <p>(d) Concentrations measured at all sampling sites shall be reported to the Administrator every 30 days by a registered letter.</p> <p>(e) The Administrator may at any time require changes in, or expansion of, the sampling network.</p>
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FEDERAL REGULATIONS
40 CFR 61 SUBPART D
National Emission Standard for Beryllium Rocket Motor Firing

Applicable provisions of 40 cfr 61 Subpart D shall apply.

[38 FR 8826, Apr. 6, 1973, as amended at 65 FR 62151, Oct. 17, 2000; 79 FR 11275, Feb. 27, 2014]

Applicability

§61.40	The provisions of this subpart are applicable to rocket motor test sites.
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Emission Standard

§61.42	<p>(a) Emissions to the atmosphere from rocket-motor test sites shall not cause time-weighted atmospheric concentrations of beryllium to exceed 75 microgram minutes per cubic meter ($\mu\text{g-min}/\text{m}^3$)($4.68 \times 10^{-9}$ pound minutes per cubic foot ($\text{lb-min}/\text{ft}^3$)) of air within the limits of 10 to 60 minutes, accumulated during any 2 consecutive weeks, in any area in which an adverse effect to public health could occur.</p> <p>(b) If combustion products from the firing of beryllium propellant are collected in a closed tank, emissions from such tank shall not exceed 2.0 g/hr (0.0044 lb/hr) and a maximum of 10 g/day (0.022 lb/day).</p>
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Emission Testing: Rocket Firing or Propellant Disposal

§61.43	<p>(a) Ambient air concentrations shall be measured during and after firing of a rocket motor or propellant disposal and in such a manner that the effect of these emissions can be compared with the standard. Such sampling techniques shall be approved by the Administrator.</p> <p>(b) All samples shall be analyzed and results shall be calculated within 30 days after samples are taken and before any subsequent rocket motor firing or propellant disposal at the given site. All results shall be reported to the Administrator by a registered letter dispatched before the close of the next business day following determination of such results.</p> <p>(c) Records of air sampling test results and other data needed to determine integrated intermittent concentrations shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.</p> <p>(d) The Administrator shall be notified at least 30 days prior to an air sampling test, so that he may at his option observe the test.</p>
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Emission Standard

§61.44	<p>(a) Sources subject to §61.42(b) shall be continuously sampled, during release of combustion products from the tank, according to Method 104 of appendix B to this part. Method 103 of appendix B to this part is approved by the Administrator as an alternative method for sources subject to §61.42(b).</p> <p>(b) All samples shall be analyzed, and beryllium emissions shall be determined within 30 days after samples are taken and before any subsequent rocket motor firing or propellant disposal at the given site. All determinations shall be reported to the Administrator by a registered letter dispatched before the close of the next business day following such determinations.</p> <p>(c) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.</p> <p>(d) The Administrator shall be notified at least 30 days prior to an emission test, so that he may at his option observe the test.</p>
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FEDERAL REGULATIONS
40 CFR 61 SUBPART M
National Emission Standard for Asbestos

Applicable provisions of 40 CFR 61 Subpart M shall apply.

[55 FR 48414, Nov. 20, 1990]

Applicability

§61.140	The provisions of this subpart are applicable to those sources specified in §§61.142 through 61.151, 61.154, and 61.155.
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Standard for Roadways

§61.143	<p>No person may construct or maintain a roadway with asbestos tailings or asbestos-containing waste material on that roadway, unless, for asbestos tailings.</p> <p>(a) It is a temporary roadway on an area of asbestos ore deposits (asbestos mine): or</p> <p>(b) It is a temporary roadway at an active asbestos mill site and is encapsulated with a resinous or bituminous binder. The encapsulated road surface must be maintained at a minimum frequency of once per year to prevent dust emissions; or</p> <p>(c) It is encapsulated in asphalt concrete meeting the specifications contained in section 401 of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-85, 1985, or their equivalent.</p>
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Standard for Demolition and Renovation

§61.145(a)	<p>(a) To determine which requirements of paragraphs (a), (b), and (c) of this section apply to the owner or operator of a demolition or renovation activity and prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. The requirements of paragraphs (b) and (c) of this section apply to each owner or operator of a demolition or renovation activity, including the removal of RACM as follows:</p>
§61.145(a)(1)	<p>(1) In a facility being demolished, all the requirements of paragraphs (b) and (c) of this section apply, except as provided in paragraph (a)(3) of this section, if the combined amount of RACM is</p> <p>(i) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components, or</p> <p>(ii) At least 1 cubic meter (35 cubic feet) of facility components where the length or area could not be measured previously.</p>

<p>§61.145(a)(2)</p>	<p>(2) In a facility being demolished, only the notification requirements of paragraphs (b)(1), (2), (3)(i) and (iv), and (4)(i) through (vii) and (4)(ix) and (xvi) of this section apply, if the combined amount of RACM is</p> <p>(i) Less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components, and</p> <p>(ii) Less than one cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously or there is no asbestos.</p> <p>(3) If the facility is being demolished under an order of a State or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse, only the requirements of paragraphs (b)(1), (b)(2), (b)(3)(iii), (b)(4) (except (b)(4)(viii)), (b)(5), and (c)(4) through (c)(9) of this section apply.</p> <p>(4) In a facility being renovated, including any individual nonscheduled renovation operation, all the requirements of paragraphs (b) and (c) of this section apply if the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is</p> <p>(i) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components, or</p> <p>(ii) At least 1 cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously.</p> <p>(iii) To determine whether paragraph (a)(4) of this section applies to planned renovation operations involving individual nonscheduled operations, predict the combined additive amount of RACM to be removed or stripped during a calendar year of January 1 through December 31.</p> <p>(iv) To determine whether paragraph (a)(4) of this section applies to emergency renovation operations, estimate the combined amount of RACM to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.</p> <p>(5) Owners or operators of demolition and renovation operations are exempt from the requirements of §§61.05(a), 61.07, and 61.09.</p>
<p>§61.145(b)</p>	<p>Notification Requirements</p> <p>(b)Each owner or operator of a demolition or renovation activity to which this section applies shall:</p> <p>(1) Provide the Administrator with written notice of intention to demolish or renovate. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.</p> <p>(2) Update notice, as necessary, including when the amount of asbestos affected changes by at least 20 percent.</p> <p>(3) Postmark or deliver the notice as follows:</p> <p>(i) At least 10 working days before asbestos stripping or removal work or any other activity begins (such as site preparation that would break up, dislodge or similarly disturb asbestos material), if the operation is described in paragraphs (a) (1) and (4) (except (a)(4)(iii) and (a)(4)(iv)) of this section. If the operation is as described in paragraph (a)(2) of this section, notification is required 10 working days before demolition begins.</p>

<p>§61.145(b)</p>	<p>(ii) At least 10 working days before the end of the calendar year preceding the year for which notice is being given for renovations described in paragraph (a)(4)(iii) of this section.</p> <p>(iii) As early as possible before, but not later than, the following working day if the operation is a demolition ordered according to paragraph (a)(3) of this section or, if the operation is a renovation described in paragraph (a)(4)(iv) of this section.</p> <p>(iv) For asbestos stripping or removal work in a demolition or renovation operation, described in paragraphs (a) (1) and (4) (except (a)(4)(iii) and (a)(4)(iv)) of this section, and for a demolition described in paragraph (a)(2) of this section, that will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator as follows:</p> <p>(A) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin after the date contained in the notice,</p> <p>(1) Notify the Administrator of the new start date by telephone as soon as possible before the original start date, and</p> <p>(2) Provide the Administrator with a written notice of the new start date as soon as possible before, and no later than, the original start date. Delivery of the updated notice by the U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.</p> <p>(B) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin on a date earlier than the original start date,</p> <p>(1) Provide the Administrator with a written notice of the new start date at least 10 working days before asbestos stripping or removal work begins.</p> <p>(2) For demolitions covered by paragraph (a)(2) of this section, provide the Administrator written notice of a new start date at least 10 working days before commencement of demolition. Delivery of updated notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.</p> <p>(C) In no event shall an operation covered by this paragraph begin on a date other than the date contained in the written notice of the new start date.</p> <p>(4) Include the following in the notice:</p> <p>(i) An indication of whether the notice is the original or a revised notification.</p> <p>(ii) Name, address, and telephone number of both the facility owner and operator and the asbestos removal contractor owner or operator.</p> <p>(iii) Type of operation: demolition or renovation.</p> <p>(iv) Description of the facility or affected part of the facility including the size (square meters [square feet] and number of floors), age, and present and prior use of the facility.</p> <p>(v) Procedure, including analytical methods, employed to detect the presence of RACM and Category I and Category II nonfriable ACM.</p>
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<p>§61.145(b)</p>	<p>(vi) Estimate of the approximate amount of RACM to be removed from the facility in terms of length of pipe in linear meters (linear feet), surface area in square meters (square feet) on other facility components, or volume in cubic meters (cubic feet) if off the facility components. Also, estimate the approximate amount of Category I and Category II nonfriable ACM in the affected part of the facility that will not be removed before demolition.</p> <p>(vii) Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state, of the facility being demolished or renovated.</p> <p>(viii) Scheduled starting and completion dates of asbestos removal work (or any other activity, such as site preparation that would break up, dislodge, or similarly disturb asbestos material) in a demolition or renovation; planned renovation operations involving individual nonscheduled operations shall only include the beginning and ending dates of the report period as described in paragraph (a)(4)(iii) of this section.</p> <p>(ix) Scheduled starting and completion dates of demolition or renovation.</p> <p>(x) Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and description of affected facility components.</p> <p>(xi) Description of work practices and engineering controls to be used to comply with the requirements of this subpart, including asbestos removal and waste-handling emission control procedures.</p> <p>(xii) Name and location of the waste disposal site where the asbestos-containing waste material will be deposited.</p> <p>(xiii) A certification that at least one person trained as required by paragraph (c)(8) of this section will supervise the stripping and removal described by this notification. This requirement shall become effective 1 year after promulgation of this regulation.</p> <p>(xiv) For facilities described in paragraph (a)(3) of this section, the name, title, and authority of the State or local government representative who has ordered the demolition, the date that the order was issued, and the date on which the demolition was ordered to begin. A copy of the order shall be attached to the notification.</p> <p>(xv) For emergency renovations described in paragraph (a)(4)(iv) of this section, the date and hour that the emergency occurred, a description of the sudden, unexpected event, and an explanation of how the event caused an unsafe condition, or would cause equipment damage or an unreasonable financial burden.</p> <p>(xvi) Description of procedures to be followed in the event that unexpected RACM is found or Category II nonfriable ACM becomes crumbled, pulverized, or reduced to powder.</p> <p>(xvii) Name, address, and telephone number of the waste transporter.</p> <p>(5) The information required in paragraph (b)(4) of this section must be reported using a form similar to that shown in Figure 3.</p>
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§61.145(c)

Procedures for Asbestos Emission Control.

(c)Each owner or operator of a demolition or renovation activity to whom this paragraph applies, according to paragraph (a) of this section, shall comply with the following procedures:

(1) Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. RACM need not be removed before demolition if:

(i) It is Category I nonfriable ACM that is not in poor condition and is not friable.

(ii) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; or

(iii) It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos-contaminated debris must be treated as asbestos-containing waste material and adequately wet at all times until disposed of.

(iv) They are Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition.

(2) When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections:

(i) Adequately wet all RACM exposed during cutting or disjoining operations; and

(ii) Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing the RACM.

(3) When RACM is stripped from a facility component while it remains in place in the facility, adequately wet the RACM during the stripping operation.

(i) In renovation operations, wetting is not required if:

(A) The owner or operator has obtained prior written approval from the Administrator based on a written application that wetting to comply with this paragraph would unavoidably damage equipment or present a safety hazard; and

(B) The owner or operator uses of the following emission control methods:

(1) A local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the asbestos materials. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in §61.152.

(2) A glove-bag system designed and operated to contain the particulate asbestos material produced by the stripping of the asbestos materials.

(3) Leak-tight wrapping to contain all RACM prior to dismantlement.

<p>§61.145(c)</p>	<p>(ii) In renovation operations where wetting would result in equipment damage or a safety hazard, and the methods allowed in paragraph (c)(3)(i) of this section cannot be used, another method may be used after obtaining written approval from the Administrator based upon a determination that it is equivalent to wetting in controlling emissions or to the methods allowed in paragraph (c)(3)(i) of this section.</p> <p>(iii) A copy of the Administrator's written approval shall be kept at the worksite and made available for inspection.</p> <p>(4) After a facility component covered with, coated with, or containing RACM has been taken out of the facility as a unit or in sections pursuant to paragraph (c)(2) of this section, it shall be stripped or contained in leak-tight wrapping, except as described in paragraph (c)(5) of this section. If stripped, either:</p> <p>(i) Adequately wet the RACM during stripping; or</p> <p>(ii) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in §61.152.</p> <p>(5) For large facility components such as reactor vessels, large tanks, and steam generators, but not beams (which must be handled in accordance with paragraphs (c)(2), (3), and (4) of this section), the RACM is not required to be stripped if the following requirements are met:</p> <p>(i) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM.</p> <p>(ii) The component is encased in a leak-tight wrapping.</p> <p>(iii) The leak-tight wrapping is labeled according to §61.149(d)(1)(i), (ii), and (iii) during all loading and unloading operations and during storage.</p> <p>(6) For all RACM, including material that has been removed or stripped:</p> <p>(i) Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with §61.150; and</p> <p>(ii) Carefully lower the material to the ground and floor, not dropping, throwing, sliding, or otherwise damaging or disturbing the material.</p> <p>(iii) Transport the material to the ground via leak-tight chutes or containers if it has been removed or stripped more than 50 feet above ground level and was not removed as units or in sections.</p> <p>(iv) RACM contained in leak-tight wrapping that has been removed in accordance with paragraphs (c)(4) and (c)(3)(i)(B)(3) of this section need not be wetted.</p> <p>(7) When the temperature at the point of wetting is below 0 °C (32 °F):</p> <p>(i) The owner or operator need not comply with paragraph (c)(2)(i) and the wetting provisions of paragraph (c)(3) of this section.</p> <p>(ii) The owner or operator shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.</p>
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§61.145(c)	<p>(iii) During periods when wetting operations are suspended due to freezing temperatures, the owner or operator must record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for inspection by the Administrator during normal business hours at the demolition or renovation site. The owner or operator shall retain the temperature records for at least 2 years.</p> <p>(8) Effective 1 year after promulgation of this regulation, no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management-level person or other authorized representative, trained in the provisions of this regulation and the means of complying with them, is present. Every 2 years, the trained on-site individual shall receive refresher training in the provisions of this regulation. The required training shall include as a minimum: applicability; notifications; material identification; control procedures for removals including, at least, wetting, local exhaust ventilation, negative pressure enclosures, glove-bag procedures, and High Efficiency Particulate Air (HEPA) filters; waste disposal work practices; reporting and recordkeeping; and asbestos hazards and worker protection. Evidence that the required training has been completed shall be posted and made available for inspection by the Administrator at the demolition or renovation site.</p> <p>(9) For facilities described in paragraph (a)(3) of this section, adequately wet the portion of the facility that contains RACM during the wrecking operation.</p> <p>(10) If a facility is demolished by intentional burning, all RACM including Category I and Category II nonfriable ACM must be removed in accordance with the NESHAP before burning.</p>
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Standard for Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying Operations

§61.150	<p>Each owner or operator of any source covered under the provisions of §§61.144, 61.145, 61.146, and 61.147 shall comply with the following provisions:</p> <p>(a) Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any asbestos-containing waste material generated by the source, or use one of the emission control and waste treatment methods specified in paragraphs (a) (1) through (4) of this section.</p> <p>(1) Adequately wet asbestos-containing waste material as follows:</p> <p>(i) Mix control device asbestos waste to form a slurry; adequately wet other asbestos-containing waste material; and</p> <p>(ii) Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations, or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and</p> <p>(iii) After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; or, for materials that will not fit into containers without additional breaking, put materials into leak-tight wrapping; and</p> <p>(iv) Label the containers or wrapped materials specified in paragraph (a)(1)(iii) of this section using warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001(j)(4) or 1926.1101(k)(8). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.</p>
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<p>§61.150</p>	<p>(v) For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.</p> <p>(2) Process asbestos-containing waste material into nonfriable forms as follows:</p> <p>(i) Form all asbestos-containing waste material into nonfriable pellets or other shapes;</p> <p>(ii) Discharge no visible emissions to the outside air from collection and processing operations, including incineration, or use the method specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.</p> <p>(3) For facilities demolished where the RACM is not removed prior to demolition according to §§61.145(c)(1) (i), (ii), (iii), and (iv) or for facilities demolished according to §61.145(c)(9), adequately wet asbestos-containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site. Asbestos-containing waste materials covered by this paragraph do not have to be sealed in leak-tight containers or wrapping but may be transported and disposed of in bulk.</p> <p>(4) Use an alternative emission control and waste treatment method that has received prior approval by the Administrator according to the procedure described in §61.149(c)(2).</p> <p>(5) As applied to demolition and renovation, the requirements of paragraph (a) of this section do not apply to Category I nonfriable ACM waste and Category II nonfriable ACM waste that did not become crumbled, pulverized, or reduced to powder.</p> <p>(b) All asbestos-containing waste material shall be deposited as soon as is practical by the waste generator at:</p> <p>(1) A waste disposal site operated in accordance with the provisions of §61.154, or</p> <p>(2) An EPA-approved site that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material according to the provisions of §61.155.</p> <p>(3) The requirements of paragraph (b) of this section do not apply to Category I nonfriable ACM that is not RACM.</p> <p>(c) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of waste so that the signs are visible. The markings must conform to the requirements of §§61.149(d)(1) (i), (ii), and (iii).</p> <p>(d) For all asbestos-containing waste material transported off the facility site:</p> <p>(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:</p> <p>(i) The name, address, and telephone number of the waste generator.</p> <p>(ii) The name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.</p> <p>(iii) The approximate quantity in cubic meters (cubic yards).</p> <p>(iv) The name and telephone number of the disposal site operator.</p> <p>(v) The name and physical site location of the disposal site.</p>
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<p>§61.150</p>	<p>(vi) The date transported.</p> <p>(vii) The name, address, and telephone number of the transporter(s).</p> <p>(viii) A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.</p> <p>(2) Provide a copy of the waste shipment record, described in paragraph (d)(1) of this section, to the disposal site owners or operators at the same time as the asbestos-containing waste material is delivered to the disposal site.</p> <p>(3) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.</p> <p>(4) Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. Include in the report the following information:</p> <p>(i) A copy of the waste shipment record for which a confirmation of delivery was not received, and</p> <p>(ii) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.</p> <p>(5) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.</p> <p>(e) Furnish upon request, and make available for inspection by the Administrator, all records required under this section.</p>
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Air Cleaning

<p>§61.152</p>	<p>(a) The owner or operator who uses air cleaning, as specified in §§61.142(a), 61.144(b)(2), 61.145(c)(3)(i)(B)(I), 61.145(c)(4)(ii), 61.145(c)(11)(i), 61.146(b)(2), 61.147(b)(2), 61.149(b), 61.149(c)(1)(ii), 61.150(a)(1)(ii), 61.150(a)(2)(ii), and 61.155(e) shall:</p> <p>(1) Use fabric filter collection devices, except as noted in paragraph (b) of this section, doing all of the following:</p> <p>(i) Ensuring that the airflow permeability, as determined by ASTM Method D737-75, does not exceed 9 m³/min/m² (30 ft³/min/ft²) for woven fabrics or 11³/min/m² (35 ft³/min/ft²) for felted fabrics, except that 12 m³/min/m² (40 ft³/min/ft²) for woven and 14 m³/min/m² (45 ft³/min/ft²) for felted fabrics is allowed for filtering air from asbestos ore dryers; and</p> <p>(ii) Ensuring that felted fabric weighs at least 475 grams per square meter (14 ounces per square yard) and is at least 1.6 millimeters (one-sixteenth inch) thick throughout; and</p> <p>(iii) Avoiding the use of synthetic fabrics that contain fill yarn other than that which is spun.</p>
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Air Cleaning

§61.152	<p>(2) Properly install, use, operate, and maintain all air-cleaning equipment authorized by this section. Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos material.</p> <p>(3) For fabric filter collection devices installed after January 10, 1989, provide for easy inspection for faulty bags.</p> <p>(b) There are the following exceptions to paragraph (a)(1):</p> <p>(1) After January 10, 1989, if the use of fabric creates a fire or explosion hazard, or the Administrator determines that a fabric filter is not feasible, the Administrator may authorize as a substitute the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals (40 inches water gage pressure).</p> <p>(2) Use a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles.</p> <p>(3) The Administrator may authorize the use of filtering equipment other than described in paragraphs (a)(1) and (b)(1) and (2) of this section if the owner or operator demonstrates to the Administrator's satisfaction that it is equivalent to the described equipment in filtering particulate asbestos material.</p>
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Reporting

§61.153	<p>(a) Any new source to which this subpart applies (with the exception of sources subject to §§61.143, 61.145, 61.146, and 61.148), which has an initial startup date preceding the effective date of this revision, shall provide the following information to the Administrator postmarked or delivered within 90 days of the effective date. In the case of a new source that does not have an initial startup date preceding the effective date, the information shall be provided, postmarked or delivered, within 90 days of the initial startup date. Any owner or operator of an existing source shall provide the following information to the Administrator within 90 days of the effective date of this subpart unless the owner or operator of the existing source has previously provided this information to the Administrator. Any changes in the information provided by any existing source shall be provided to the Administrator, postmarked or delivered, within 30 days after the change.</p> <p>(1) A description of the emission control equipment used for each process; and</p> <p>(i) If the fabric device uses a woven fabric, the airflow permeability in $\text{m}^3/\text{min}/\text{m}^2$ and; if the fabric is synthetic, whether the fill yarn is spun or not spun; and</p> <p>(ii) If the fabric filter device uses a felted fabric, the density in g/m^2, the minimum thickness in inches, and the airflow permeability in $\text{m}^3/\text{min}/\text{m}^2$.</p> <p>(2) If a fabric filter device is used to control emissions,</p> <p>(i) The airflow permeability in $\text{m}^3/\text{min}/\text{m}^2$ ($\text{ft}^3/\text{min}/\text{ft}^2$) if the fabric filter device uses a woven fabric, and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and</p> <p>(ii) If the fabric filter device uses a felted fabric, the density in g/m^2 (oz/yd^2), the minimum thickness in millimeters (inches), and the airflow permeability in $\text{m}^3/\text{min}/\text{m}^2$ ($\text{ft}^3/\text{min}/\text{ft}^2$).</p> <p>(3) If a HEPA filter is used to control emissions, the certified efficiency.</p> <p>(4) For sources subject to §§61.149 and 61.150:</p>
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	<p>(i) A brief description of each process that generates asbestos-containing waste material; and</p> <p>(ii) The average volume of asbestos-containing waste material disposed of, measured in m³/day (yd³/day); and</p> <p>(iii) The emission control methods used in all stages of waste disposal; and</p> <p>(iv) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.</p> <p>(5) For sources subject to §§61.151 and 61.154:</p> <p>(i) A brief description of the site; and</p> <p>(ii) The method or methods used to comply with the standard, or alternative procedures to be used.</p> <p>(b) The information required by paragraph (a) of this section must accompany the information required by §61.10. Active waste disposal sites subject to §61.154 shall also comply with this provision. Roadways, demolition and renovation, spraying, and insulating materials are exempted from the requirements of §61.10(a). The information described in this section must be reported using the format of appendix A of this part as a guide.</p>
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FEDERAL REGULATIONS
40 CFR 63 SUBPART A
General Provisions

Applicable provisions of 40 CFR 63 Subpart A shall apply.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16595, Apr. 5, 2002]

Applicability

§63.1(a)

General. (1) Terms used throughout this part are defined in §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 §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 (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4)(i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7)-(9) [Reserved]

<p>§63.1(a)</p>	<p>(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.</p> <p>(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.</p> <p>(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 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 §63.9(i).</p>
<p>§63.1(b)</p>	<p>(b) <i>Initial applicability determination for this part.</i> (1) The provisions of this part apply to the owner or operator of any stationary source that—</p> <p>(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and</p> <p>(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.</p> <p>(2) [Reserved]</p> <p>(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in §63.10(b)(3).</p>
<p>§63.1(c)</p>	<p>(c) <i>Applicability of this part after a relevant standard has been set under this part.</i> (1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.</p> <p>(2) Except as provided in §63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether—</p> <p>(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);</p> <p>(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or</p>

<p>§63.1(c)</p>	<p>(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.</p> <p>(3)-(4) [Reserved]</p> <p>(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.</p>
<p>§§63.1(e)</p>	<p>(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.</p>

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FEDERAL REGULATIONS
40 CFR 63 SUBPART ZZZZ
National Emissions Standards for Hazardous Air Pollutants for Stationary
Reciprocating Internal Combustion Engines

Applicable provisions of 40 CFR 63 Subpart ZZZZ shall apply.

[73 FR 3603, Jan. 18, 2008]

Purpose

§63.6580	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.
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Applicability

§63.6585	<p>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.</p> <p>(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.</p> <p>(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.</p> <p>(c) An area source of HAP emissions is a source that is not a major source.</p> <p>(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.</p> <p>(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.</p> <p>(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).</p>
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§63.6585	<p>(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are 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) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).</p> <p>(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are 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) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).</p> <p>(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are 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) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).</p>
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Affected Source

§63.6590	<p>This subpart applies to each affected source.</p> <p>(a) <i>Affected source.</i> 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.</p> <p>(1) <i>Existing stationary RICE.</i></p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.</p> <p>(2) <i>New stationary RICE.</i> (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.</p> <p>(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.</p> <p>(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.</p>
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<p>§63.6590</p>	<p>(3) <i>Reconstructed stationary RICE.</i> (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.</p> <p>(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.</p> <p>(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.</p> <p>(b) <i>Stationary RICE subject to limited requirements.</i> (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).</p> <p>(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).</p> <p>(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.</p> <p>(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.</p> <p>(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:</p> <p>(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;</p> <p>(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;</p> <p>(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).</p> <p>(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;</p> <p>(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;</p>
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<p>§63.6590</p>	<p>(c) <i>Stationary RICE subject to Regulations under 40 CFR Part 60.</i> 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.</p> <p>(1) A new or reconstructed stationary RICE located at an area source;</p> <p>(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 source of HAP emissions;</p> <p>(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;</p> <p>(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;</p> <p>(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;</p> <p>(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;</p> <p>(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.</p>
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Compliance Dates

<p>§63.6595</p>	<p>(a) <i>Affected sources.</i> (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.</p> <p>(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.</p> <p>(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.</p>
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§63.6595	<p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(7) If you start up your new or reconstructed stationary RICE located at an area 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.</p> <p>(b) <i>Area sources that become major sources.</i> 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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
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Emission Limitations and Operating Limitations: Stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions

§63.6600	<p>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.</p> <p>(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB 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 emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.</p> <p>(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed 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 emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.</p>
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§63.6600	<p>(c) If you own or operate any of the following stationary 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 emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.</p> <p>(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.</p>
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Emission Limitations: New or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions

§63.6601	<p>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. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.</p>
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Emission Limitations and Other Requirements: Existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions

§63.6602	<p>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.</p>
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Emission Limitations, Operating Limitations, and Other Requirements: Existing stationary RICE located at an area source of HAP emissions

§ 63.6603	<p>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.</p> <p>(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.</p>
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§ 63.6603

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. 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.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g).

<p>§ 63.6603</p>	<p>You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.</p> <p>(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.</p> <p>(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.</p>
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Fuel Requirements for Stationary CI RICE

<p>§ 63.6604</p>	<p>(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.</p> <p>(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is 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) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.</p> <p>(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is 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), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.</p> <p>(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.</p>
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General Requirements

§ 63.6605	<p>(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.</p> <p>(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.</p>
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Initial Performance Tests: RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

§ 63.6610	<p>If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.</p> <p>(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).</p> <p>(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).</p> <p>(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).</p> <p>(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.</p> <p>(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.</p> <p>(2) The test must not be older than 2 years.</p> <p>(3) The test must be reviewed and accepted by the Administrator.</p> <p>(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.</p> <p>(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.</p>
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Initial Performance Tests: New or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions

§ 63.6611	If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.
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Initial Performance Tests: Existing 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 stationary RICE located at an area source of HAP emissions

§ 63.6612	<p>If you own or operate an existing 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 stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.</p> <p>(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).</p> <p>(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.</p> <p>(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.</p> <p>(2) The test must not be older than 2 years.</p> <p>(3) The test must be reviewed and accepted by the Administrator.</p> <p>(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.</p>
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Subsequent Performance Tests

§ 63.6615	If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.
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Performance Tests and Other Procedures**§ 63.6620**

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

§ 63.6620

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{CO_2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 —15 percent O_2 , the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{\text{adj}} = C_d \frac{X_{\text{CO}_2}}{\% \text{CO}_2} \quad (\text{Eq. 4})$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2 .

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO_2} = CO_2 correction factor, percent.

$\% \text{CO}_2$ = Measured CO_2 concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

<p>§ 63.6620</p>	<p>(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.</p> <p>(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.</p> <p>(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (<i>e.g.</i>, operator adjustment, automatic controller adjustment, etc.) or unintentionally (<i>e.g.</i>, wear and tear, error, etc.) on a routine basis or over time;</p> <p>(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;</p> <p>(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;</p> <p>(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;</p> <p>(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;</p> <p>(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and</p> <p>(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.</p> <p>(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.</p>
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Monitoring, Installation, Collection, Operation, and Maintenance Requirements

<p>§ 63.6625</p>	<p>(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.</p> <p>(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.</p>
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	<p>(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.</p> <p>(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.</p> <p>(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.</p> <p>(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.</p> <p>(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (<i>e.g.</i>, thermocouple) location such that the monitoring system will provide representative measurements;</p> <p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).</p> <p>(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.</p> <p>(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.</p>
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	<p>(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.</p> <p>(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.</p> <p>(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:</p> <ul style="list-style-type: none"> (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions; (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) An existing emergency or black start stationary RICE located at an area source of HAP emissions; (4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions; (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions; (6) An existing non-emergency, non-black start stationary RICE located at an area 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. (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions; (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions; (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year. <p>(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.</p>
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(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(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) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 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 Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 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.

Initial Compliance Demonstration

§ 63.6630	<p>(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.</p> <p>(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.</p> <p>(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.</p> <p>(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.</p> <p>(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:</p> <ol style="list-style-type: none">(1) The compliance demonstration must consist of at least three test runs.(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.
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Continuous Compliance Demonstration: Monitor and Data Collection

<p>§ 63.6635</p>	<p>(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.</p> <p>(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.</p>
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Continuous Compliance Demonstration: Emission Limitations, Operating Limitations, and Other Requirements

<p>§ 63.6640</p>	<p>(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.</p> <p>(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.</p> <p>(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:</p> <ol style="list-style-type: none"> (1) The compliance demonstration must consist of at least one test run. (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement. (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart. (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A. (5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.
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(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(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. 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 the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

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 Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the 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.

	<p>(ii) Emergency stationary RICE 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 §63.14), 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.</p> <p>(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.</p> <p>(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.</p> <p>(4) Emergency stationary RICE located at area 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. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.</p> <p>(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.</p> <p>(ii) 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:</p> <p>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.</p> <p>(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.</p> <p>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.</p> <p>(D) The power is provided only to the facility itself or to support the local transmission and distribution system.</p> <p>(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.</p>
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Notifications, Reports, and Records

§63.6645	<p>(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;</p> <p>(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.</p> <p>(2) An existing stationary RICE located at an area source of HAP emissions.</p> <p>(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.</p> <p>(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.</p> <p>(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.</p> <p>(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.</p> <p>(c) 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 on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.</p> <p>(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.</p> <p>(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.</p> <p>(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).</p> <p>(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).</p> <p>(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).</p> <p>(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.</p>
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	<p>(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).</p> <p>(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.</p>
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Reporting Requirements

§ 63.6650	<p>(a) You must submit each report in Table 7 of this subpart that applies to you.</p> <p>(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.</p> <p>(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.</p> <p>(2) For semiannual Compliance reports, 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 §63.6595.</p> <p>(3) For semiannual Compliance reports, 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.</p> <p>(4) For semiannual Compliance reports, 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.</p> <p>(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.</p> <p>(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.</p> <p>(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.</p> <p>(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.</p> <p>(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.</p>
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	<p>(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.</p> <p>(1) Company name and address.</p> <p>(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.</p> <p>(4) If you had a malfunction during the reporting period, the compliance 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 an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.</p> <p>(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.</p> <p>(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.</p> <p>(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.</p> <p>(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.</p> <p>(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(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.</p> <p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p>
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	<p>(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p> <p>(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.</p> <p>(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.</p> <p>(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.</p> <p>(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.</p> <p>(3) Any problems or errors suspected with the meters.</p> <p>(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is 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) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.</p> <p>(1) The report must contain the following information:</p> <p>(i) Company name and address where the engine is located.</p> <p>(ii) Date of the report and beginning and ending dates of the reporting period.</p> <p>(iii) Engine site rating and model year.</p> <p>(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.</p>
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	<p>(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).</p> <p>(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).</p> <p>(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.</p> <p>(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.</p> <p>(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.</p> <p>(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.</p> <p>(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). 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 §63.13.</p>
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Record Retention

§63.6655	<p>(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.</p> <p>(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).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (<i>i.e.</i>, process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p> <p>(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.</p> <p>(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.</p> <p>(1) Records described in §63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (<i>i.e.</i>, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).</p>
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(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

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

(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) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

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

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

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FEDERAL REGULATIONS
40 CFR 63 SUBPART DDDDD
National Emission Standards for Hazardous Air Pollutants for Major Sources:
Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable provisions of 40 CFR 63 Subpart DDDDD shall apply.

[76 FR 15664, Mar. 21, 2011, unless otherwise noted]

Purpose

§63.7480	This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.
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Applicability

§63.7485	<p>You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP, except as specified in §63.7491. For purposes of this subpart, a major source of HAP is as defined in §63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in §63.7575.</p> <p>[78 FR 7162, Jan. 31, 2013]</p>
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Affected Source

§63.7490	<p>a) This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.</p> <p>(1) The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in §63.7575.</p> <p>(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in §63.7575, located at a major source.</p> <p>(b) A boiler or process heater is new if you commence construction of the boiler or process heater after June 4, 2010, and you meet the applicability criteria at the time you commence construction.</p>
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	<p>(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in §63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.</p> <p>(d) A boiler or process heater is existing if it is not new or reconstructed.</p> <p>(e) An existing electric utility steam generating unit (EGU) that meets the applicability requirements of this subpart after the effective date of this final rule due to a change (e.g., fuel switch) is considered to be an existing source under this subpart.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]</p>
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Boilers and Process Heaters

§63.7491	<p>The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.</p> <p>(a) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part.</p> <p>(b) A recovery boiler or furnace covered by subpart MM of this part.</p> <p>(c) A boiler or process heater that is used specifically for research and development, including test steam boilers used to provide steam for testing the propulsion systems on military vessels. This does not include units that provide heat or steam to a process at a research and development facility.</p> <p>(d) A hot water heater as defined in this subpart.</p> <p>(e) A refining kettle covered by subpart X of this part.</p> <p>(f) An ethylene cracking furnace covered by subpart YY of this part.</p> <p>(g) Blast furnace stoves as described in EPA-453/R-01-005 (incorporated by reference, see §63.14).</p> <p>(h) Any boiler or process heater that is part of the affected source subject to another subpart of this part, such as boilers and process heaters used as control devices to comply with subparts JJJ, OOO, PPP, and U of this part.</p> <p>(i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler or process heater is provided by regulated gas streams that are subject to another standard.</p> <p>(j) Temporary boilers as defined in this subpart.</p> <p>(k) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.</p>
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	<p>(l) Any boiler specifically listed as an affected source in any standard(s) established under section 129 of the Clean Air Act.</p> <p>(m) A unit that burns hazardous waste covered by Subpart EEE of this part. A unit that is exempt from Subpart EEE as specified in §63.1200(b) is not covered by Subpart EEE.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]</p> <p>Editorial Note: At 78 FR 7162, Jan. 31, 2013, §63.7491 was amended by revising paragraph (n). However, there is no paragraph (n) to be revised.</p>
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Compliance Dates

§63.7495	<p>(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by January 31, 2013, or upon startup of your boiler or process heater, whichever is later.</p> <p>(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).</p> <p>(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.</p> <p>(1) Any new or reconstructed boiler or process heater at the existing source must be in compliance with this subpart upon startup.</p> <p>(2) Any existing boiler or process heater at the existing source must be in compliance with this subpart within 3 years after the source becomes a major source.</p> <p>(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.</p> <p>(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 on the effective date of the switch from waste to fuel.</p> <p>(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2013, 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.</p> <p>(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 a 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.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]</p>
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Emission Limitations and Work Practice Standards

§63.7499

The subcategories of boilers and process heaters, as defined in §63.7575 are:

- (a) Pulverized coal/solid fossil fuel units.
- (b) Stokers designed to burn coal/solid fossil fuel.
- (c) Fluidized bed units designed to burn coal/solid fossil fuel.
- (d) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solid.
- (e) Fluidized bed units designed to burn biomass/bio-based solid.
- (f) Suspension burners designed to burn biomass/bio-based solid.
- (g) Fuel cells designed to burn biomass/bio-based solid.
- (h) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.
- (i) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solid.
- (j) Dutch ovens/pile burners designed to burn biomass/bio-based solid.
- (k) Units designed to burn liquid fuel that are non-continental units.
- (l) Units designed to burn gas 1 fuels.
- (m) Units designed to burn gas 2 (other) gases.
- (n) Metal process furnaces.
- (o) Limited-use boilers and process heaters.
- (p) Units designed to burn solid fuel.
- (q) Units designed to burn liquid fuel.
- (r) Units designed to burn coal/solid fossil fuel.
- (s) Fluidized bed units with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel.
- (t) Units designed to burn heavy liquid fuel.
- (u) Units designed to burn light liquid fuel.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013]

Emission Limitations, Work Practice Standards, and Operating Limits

§63.7500

(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 steam. 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 electricity. 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 (a)(1)(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 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.

(iii) If your boiler or process heater commenced construction or reconstruction after December 23, 2011 and before January 31, 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.

(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.

	<p>(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.</p> <p>(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 Table 3 to this subpart.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7163, Jan. 31, 2013]</p>
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General Compliance Requirements

§63.7505	<p>(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times the affected unit is operating except for the periods noted in §63.7500(f).</p> <p>(b) [Reserved]</p> <p>(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), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), 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 testing, if subject to an applicable emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.</p> <p>(d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including 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).</p> <p>(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.</p>
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	<p>(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);</p> <p>(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and</p> <p>(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).</p> <p>(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.</p> <p>(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);</p> <p>(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and</p> <p>(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).</p> <p>(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.</p> <p>(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7164, Jan. 31, 2013]</p>
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Testing, Fuel Analyses, and Initial Compliance Requirements

§63.7510	<p>(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 testing, your initial compliance requirements include all the following:</p> <p>(1) Conduct performance tests according to §63.7520 and Table 5 to this subpart.</p> <p>(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.</p> <p>(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.</p>
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	<p>(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 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 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 fuels according to §63.7521 and Table 6 to this subpart.</p> <p>(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.</p> <p>(3) Establish operating limits according to §63.7530 and Table 7 to this subpart.</p> <p>(4) Conduct CMS performance evaluations according to §63.7525.</p> <p>(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.</p> <p>(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 12, 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.</p> <p>(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.</p> <p>(e) For existing affected sources (as defined in §63.7490), you must complete the initial compliance demonstration, 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, except as specified in paragraph (j) of this section.</p> <p>(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.</p>
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	<p>(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 specified in §63.7540(a) 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 §63.7540(a).</p> <p>(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.</p> <p>(i) For an existing EGU that becomes subject after January 31, 2013, you must demonstrate compliance within 180 days after becoming an affected source.</p> <p>(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.</p> <p>[78 FR 7164, Jan. 31, 2013]</p>
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Subsequent Performance Tests, Fuel Analyses, and Tune-ups

§63.7515	<p>(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.</p> <p>(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.</p>
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(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 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(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.

(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 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).

Stack Tests and Procedure Requirement

§63.7520	<p>(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.</p> <p>(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.</p> <p>(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at 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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
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Fuel Analyses, Specification, and Procedures

§63.7521	<p>(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 and Table 6 to this subpart.</p>
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	<p>(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.</p> <p>(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.</p> <p>(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.</p> <p>(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.</p> <p>(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.</p> <p>(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for 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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(c) At a minimum, you must obtain three 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.</p> <p>(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.</p> <p>(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.</p> <p>(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. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month.</p> <p>(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.</p>
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	<p>(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.</p> <p>(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.</p> <p>(iii) You must transfer all samples to a clean plastic bag for further processing.</p> <p>(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.</p> <p>(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.</p> <p>(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.</p> <p>(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.</p> <p>(4) You must separate one of the quarter samples as the first subset.</p> <p>(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.</p> <p>(6) You must grind the sample in a mill.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
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(g) You must develop and submit a site-specific fuel analysis plan for other gas 1 fuels to the EPA Administrator for review and approval 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 notification 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.

(h) You must obtain a single fuel sample for each fuel type according to the sampling procedures listed in Table 6 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.

Emissions Averaging

§63.7522

(a) As an alternative to meeting the requirements of §63.7500 for PM (or TSM), HCl, or mercury on a boiler or process heater-specific basis, if you have more than one existing boiler or process heater in any subcategories located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are not more than 90 percent of the applicable emission limit, according to the procedures in this section. You may not include new boilers or process heaters in an emissions average.

(b) For a group of two or more existing boilers or process heaters in the same subcategory that each vent to a separate stack, you may average PM (or TSM), HCl, or mercury emissions among existing units to demonstrate compliance with the limits in Table 2 to this subpart as specified in paragraph (b)(1) through (3) of this section, if you satisfy the requirements in paragraphs (c) through (g) of this section.

(1) You may average units using a CEMS or PM CPMS for demonstrating compliance.

(2) For mercury and HCl, averaging is allowed as follows:

(i) You may average among units in any of the solid fuel subcategories.

(ii) You may average among units in any of the liquid fuel subcategories.

(iii) You may average among units in a subcategory of units designed to burn gas 2 (other) fuels.

(iv) You may not average across the units designed to burn liquid, units designed to burn solid fuel, and units designed to burn gas 2 (other) subcategories.

(3) For PM (or TSM), averaging is only allowed between units within each of the following subcategories and you may not average across subcategories:

(i) Units designed to burn coal/solid fossil fuel.

(ii) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solids.

(iii) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.

(iv) Fluidized bed units designed to burn biomass/bio-based solid.

(v) Suspension burners designed to burn biomass/bio-based solid.

(vi) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(vii) Fuel Cells designed to burn biomass/bio-based solid.

(viii) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

(ix) Units designed to burn heavy liquid fuel.

(x) Units designed to burn light liquid fuel.

(xi) Units designed to burn liquid fuel that are non-continental units.

(xii) Units designed to burn gas 2 (other) gases.

(c) For each existing boiler or process heater in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on January 31, 2013 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on January 31, 2013.

(d) The averaged emissions rate from the existing boilers and process heaters participating in the emissions averaging option must not exceed 90 percent of the limits in Table 2 to this subpart at all times the affected units are operating following the compliance date specified in §63.7495.

(e) You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section using the maximum rated heat input capacity or maximum steam generation capacity of each unit and the results of the initial performance tests or fuel analysis.

(1) You must use Equation 1a or 1b or 1c of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 2 to this subpart. Use Equation 1a if you are complying with the emission limits on a heat input basis, use Equation 1b if you are complying with the emission limits on a steam generation (output) basis, and use Equation 1c if you are complying with the emission limits on a electric generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Hm) \div \sum_{i=1}^n Hm \quad (Eq. 1a)$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in §63.7530(c).

Hm = Maximum rated heat input capacity of unit, i, in units of million Btu per hour.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times So) \div \sum_{i=1}^n So \quad (Eq. 1b)$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in §63.7530(c). If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, Eadj, determined according to §63.7533 for that unit.

So = Maximum steam output capacity of unit, i, in units of million Btu per hour, as defined in §63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Eo) \div \sum_{i=1}^n Eo \quad (Eq. 1c)$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in §63.7530(c). If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, Eadj, determined according to §63.7533 for that unit.

Eo = Maximum electric generating output capacity of unit, i, in units of megawatt hour, as defined in §63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of determining the maximum rated heat input capacity of one or more boilers that generate steam, you may use Equation 2 of this section as an alternative to using Equation 1a of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option do not exceed the emission limits for that pollutant in Table 2 to this subpart that are in pounds per million Btu of heat input.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Sm \times Cfi) \div \sum_{i=1}^n (Sm \times Cfi) \quad (Eq. 2)$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in §63.7530(c).

Sm = Maximum steam generation capacity by unit, i, in units of pounds per hour.

Cfi = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for unit, i.

1.1 = Required discount factor.

(f) After the initial compliance demonstration described in paragraph (e) of this section, you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in §63.7495. If the affected source elects to collect monthly data for up the 11 months preceding the first monthly period, these additional data points can be used to compute the 12-month rolling average in paragraph (f)(3) of this section.

(1) For each calendar month, you must use Equation 3a or 3b or 3c of this section to calculate the average weighted emission rate for that month. Use Equation 3a and the actual heat input for the month for each existing unit participating in the emissions averaging option if you are complying with emission limits on a heat input basis. Use Equation 3b and the actual steam generation for the month if you are complying with the emission limits on a steam generation (output) basis. Use Equation 3c and the actual steam generation for the month if you are complying with the emission limits on a electrical generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Hb) \div \sum_{i=1}^n Hb \quad (\text{Eq. 3a})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Hb = The heat input for that calendar month to unit, i, in units of million Btu.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times So) \div \sum_{i=1}^n So \quad (\text{Eq. 3b})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, E_{adj}, determined according to §63.7533 for that unit.

So = The steam output for that calendar month from unit, i, in units of million Btu, as defined in §63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Eo) \div \sum_{i=1}^n Eo \quad (\text{Eq. 3c})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, E_{adj}, determined according to §63.7533 for that unit.

Eo = The electric generating output for that calendar month from unit, i, in units of megawatt hour, as defined in §63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3a of this section to calculate the average weighted emission rate using the actual steam generation from the boilers participating in the emissions averaging option.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Sa \times Cfi) \div \sum_{i=1}^n (Sa \times Cfi) \quad (\text{Eq. 4})$$

Where:

AveWeightedEmissions = average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Sa = Actual steam generation for that calendar month by boiler, i, in units of pounds.

Cfi = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, i.

1.1 = Required discount factor.

(3) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the average weighted emission rate determined under paragraph (f)(1) or (2) of this section for each calendar month. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, use Equation 5 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current calendar month and the previous 11 calendar months.

$$Eavg = \sum_{i=1}^n ERi \div 12 \quad (\text{Eq. 5})$$

Where:

Eavg = 12-month rolling average emission rate, (pounds per million Btu heat input)

ERi = Monthly weighted average, for calendar month "i" (pounds per million Btu heat input), as calculated by paragraph (f)(1) or (2) of this section.

(g) You must develop, and submit upon request to the applicable Administrator for review and approval, an implementation plan for emission averaging according to the following procedures and requirements in paragraphs (g)(1) through (4) of this section.

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing boilers and process heaters in the averaging group, including for each either the applicable HAP emission level or the control technology installed as of January 31, 2013 and the date on which you are requesting emission averaging to commence;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group;

	<p>(iii) The specific control technology or pollution prevention measure to be used for each emission boiler or process heater in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple boilers or process heaters, the owner or operator must identify each boiler or process heater;</p> <p>(iv) The test plan for the measurement of PM (or TSM), HCl, or mercury emissions in accordance with the requirements in §63.7520;</p> <p>(v) The operating parameters to be monitored for each control system or device consistent with §63.7500 and Table 4, and a description of how the operating limits will be determined;</p> <p>(vi) If you request to monitor an alternative operating parameter pursuant to §63.7525, you must also include:</p> <p>(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and</p> <p>(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the Administrator, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and</p> <p>(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating load conditions. Following each compliance demonstration and until the next compliance demonstration, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.</p> <p>(3) The Administrator shall review and approve or disapprove the plan according to the following criteria:</p> <p>(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and</p> <p>(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.</p> <p>(4) The applicable Administrator shall not approve an emission averaging implementation plan containing any of the following provisions:</p> <p>(i) Any averaging between emissions of differing pollutants or between differing sources; or</p> <p>(ii) The inclusion of any emission source other than an existing unit in the same subcategories.</p> <p>(h) For a group of two or more existing affected units, each of which vents through a single common stack, you may average PM (or TSM), HCl, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.</p> <p>(i) For a group of two or more existing units in the same subcategories, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.</p>
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	<p>(j) For all other groups of units subject to the common stack requirements of paragraph (h) of this section, including situations where the exhaust of affected units are each individually controlled and then sent to a common stack, the owner or operator may elect to:</p> <p>(1) Conduct performance tests according to procedures specified in §63.7520 in the common stack if affected units from other subcategories vent to the common stack. The emission limits that the group must comply with are determined by the use of Equation 6 of this section.</p> $En = \sum_{i=1}^n (ELi \times Hi) + \sum_{i=1}^n Hi \quad (\text{Eq. 6})$ <p>Where:</p> <p>En = HAP emission limit, pounds per million British thermal units (lb/MMBtu), parts per million (ppm), or nanograms per dry standard cubic meter (ng/dscm).</p> <p>ELi = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu, ppm or ng/dscm.</p> <p>Hi = Heat input from unit i, MMBtu.</p> <p>(2) Conduct performance tests according to procedures specified in §63.7520 in the common stack. If affected units and non-affected units vent to the common stack, the non-affected units must be shut down or vented to a different stack during the performance test unless the facility determines to demonstrate compliance with the non-affected units venting to the stack; and</p> <p>(3) Meet the applicable operating limit specified in §63.7540 and Table 8 to this subpart for each emissions control system (except that, if each unit venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).</p> <p>(k) The common stack of a group of two or more existing boilers or process heaters in the same subcategories subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7168, Jan. 31, 2013]</p>
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Monitoring, Installation, Operation, and Maintenance Requirements

§63.7525	<p>(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 according to the procedures in paragraphs (a)(1) through (7) of this section.</p> <p>(1) Install the CO CEMS and oxygen analyzer by the compliance date specified in §63.7495. The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler or process heater.</p> <p>(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, 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.</p>
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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.

(3) Complete a minimum of one cycle of CO and oxygen CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen data concurrently. Collect at least four CO and oxygen 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 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) If your boiler or process heater is in the unit designed to burn coal/solid fossil fuel subcategory or the unit designed to burn heavy liquid subcategory and has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid, and you demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. As an alternative to use of a PM CPMS to demonstrate compliance with the PM limit, you may choose to use a PM CEMS.

If you choose to use a PM CEMS to demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CEMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraph (b)(5) through (8) of this section. For other boilers or process heaters, you may elect to use a PM CPMS or PM CEMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure). Owners of boilers and process heaters who elect to comply with the alternative TSM limit are not required to install a PM CPMS.

(1) Install, certify, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with §63.7505(d), the requirements in §63.7540(a)(9), and paragraphs (b)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(ii) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must be capable of detecting and responding to PM concentrations of no greater than 0.5 milligram per actual cubic meter.

(2) 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.

(3) Collect PM CPMS hourly average output data for all boiler or process heater operating hours except as indicated in §63.7535(a) through (d). Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output data collected during all boiler or process heater operating hours (milliamps).

(5) Install, certify, operate, and maintain your PM CEMS according to the procedures in your approved site-specific monitoring plan developed in accordance with §63.7505(d), the requirements in §63.7540(a)(9), and paragraphs (b)(5)(i) through (iv) of this section.

(i) You shall conduct a performance evaluation of the PM CEMS according to the applicable requirements of §60.8(e), and Performance Specification 11 at 40 CFR part 60, appendix B of this chapter.

(ii) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B of this chapter, you shall collect PM and oxygen (or carbon dioxide) data concurrently (or within a 30-to 60-minute period) by both the CEMS and conducting performance tests using Method 5 at 40 CFR part 60, appendix A-3 or Method 17 at 40 CFR part 60, appendix A-6 of this chapter.

(iii) You shall perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 at 40 CFR part 60, appendix F of this chapter. You must perform Relative Response Audits annually and perform Response Correlation Audits every 3 years.

(iv) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and performance test data to the EPA by successfully submitting the data electronically into the EPA's Central Data Exchange by using the Electronic Reporting Tool (see <http://www.epa.gov/ttn/chief/ert/erttool.html/>).

(6) 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.

(7) Collect PM CEMS hourly average output data for all boiler or process heater operating hours except as indicated in §63.7535(a) through (d).

(8) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all boiler or process heater operating hours.

(c) If you have an applicable opacity operating limit in this rule, and are not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (c)(1) through (7) of this section by the compliance date specified in §63.7495.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 at appendix B to part 60 of this chapter.

(2) You must conduct a performance evaluation of each COMS according to the requirements in §63.8(e) and according to Performance Specification 1 at appendix B to part 60 of this chapter.

(3) As specified in §63.8(c)(4)(i), each COMS must 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.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-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.

(7) You must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

(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) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (d) and (e)(1) through (4) of this section.

(1) You must install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) You must use a flow sensor with a measurement sensitivity of no greater than 2 percent of the design flow rate.

(3) You must minimize, consistent with good engineering practices, the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) You must conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(f) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (d) and (f)(1) through (6) of this section.

(1) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.*, PM scrubber pressure drop).

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion consistent with good engineering practices.

(3) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(4) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.*, check for pressure tap pluggage daily).

(5) Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(6) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in your monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(g) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (d) and (g)(1) through (4) of this section.

	<p>(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.</p> <p>(2) Ensure the sample is properly mixed and representative of the fluid to be measured.</p> <p>(3) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.</p> <p>(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.</p> <p>(h) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber, you must meet the requirements in paragraphs (h)(1) and (2) of this section.</p> <p>(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.</p> <p>(2) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.</p> <p>(i) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.</p> <p>(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.</p> <p>(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.</p> <p>(j) If you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (6) of this section.</p> <p>(1) You must install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute PM loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.</p> <p>(2) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see §63.14).</p> <p>(3) Use a bag leak detection system certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.</p> <p>(4) Use a bag leak detection system equipped with a device to record continuously the output signal from the sensor.</p> <p>(5) Use a bag leak detection system equipped with a system that will alert plant operating personnel when an increase in relative PM emissions over a preset level is detected. The alert must easily recognizable (e.g., heard or seen) by plant operating personnel.</p>
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(6) Where multiple bag leak detectors are required, the system's instrumentation and alert may be shared among detectors.

(k) For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

(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 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.

	<p>(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 (SO₂) 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.</p> <p>(m) If your unit is subject to a HCl emission limit in Tables 1, 2, or 11 through 13 of this subpart and you have an acid gas wet scrubber or dry sorbent injection control technology and you use an SO₂ CEMS, you must install the monitor at the outlet of the boiler or process heater, downstream of all emission control devices, and you must install, certify, operate, and maintain the CEMS according to part 75 of this chapter.</p> <p>(1) The SO₂ CEMS must be installed by the compliance date specified in §63.7495.</p> <p>(2) For on-going quality assurance (QA), the SO₂ CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO₂ CEMS has a span value of 30 ppm or less.</p> <p>(3) For a new unit, the initial performance evaluation shall be completed no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than July 29, 2016.</p> <p>(4) For purposes of collecting SO₂ data, you must operate the SO₂ 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 SO₂ data are unavailable may constitute monitoring deviations as specified in §63.7535(d).</p> <p>(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis.</p> <p>(6) Use only unadjusted, quality-assured SO₂ concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO₂ data and do not use part 75 substitute data values.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7171, Jan. 31, 2013]</p>
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Initial Compliance Demonstration: Emission Limitations, Fuel Specifications and Work Practice Standards

§63.7530	<p>(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)(i). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to §63.7525.</p> <p>(b) If you demonstrate compliance through performance 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.</p>
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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.

$$Clinput = \sum_{i=1}^n (Ci \times Qi) \quad (\text{Eq. 7})$$

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. 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.

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 (HGi).

(iii) You must establish a maximum mercury input level using Equation 8 of this section.

$$Mercuryinput = \sum_{i=1}^n (HGi \times Qi) \quad (\text{Eq. 8})$$

Where:

Mercuryinput = 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. 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.

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 (TSMinput) 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 (TSMi).

(iii) You must establish a maximum TSM input level using Equation 9 of this section.

$$TSMinput = \sum_{i=1}^n (TSMi \times Qi) \quad (\text{Eq. 9})$$

Where:

TSMinput = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSMi = 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. 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.

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) For a wet acid gas scrubber, you must establish the minimum scrubber effluent pH and liquid flow rate as defined in §63.7575, as your operating limits during the performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for HCl and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flow rate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate operating limit at the higher of the minimum values established during the performance tests.

(ii) For any particulate control device (e.g., ESP, particulate wet scrubber, fabric filter) for which you use a PM CPMS, you must establish your PM CPMS operating limit and determine compliance with it according to paragraphs (b)(4)(ii)(A) through (F) of this section.

(A) Determine your operating limit as the average PM CPMS output value recorded during the most recent performance test run demonstrating compliance with the filterable PM emission limit or at the PM CPMS output value corresponding to 75 percent of the emission limit if your PM performance test demonstrates compliance below 75 percent of the emission limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(1) Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(2) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

(3) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(B) If the average of your three PM performance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in paragraphs (b)(4)(ii)(B)(1) through (4) of this section.

(1) Determine your instrument zero output with one of the following procedures:

(i) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(ii) Zero point data for *extractive* instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(iii) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(iv) If none of the steps in paragraphs (b)(4)(ii)(B)(1)(i) through (iii) of this section are possible, you must use a zero output value provided by the manufacturer.

(2) Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using equation 10.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n y_i \quad (\text{Eq. 10})$$

Where:

X_1 = the PM CPMS data points for the three runs constituting the performance test,

Y_1 = the PM concentration value for the three runs constituting the performance test, and

n = the number of data points.

(3) With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM concentration from your three compliance tests, determine a relationship of lb/MMBtu per milliamp with equation 11.

$$R = \frac{Y_1}{(X_1 - z)} \quad (\text{Eq. 11})$$

Where:

R = the relative lb/MMBtu per milliamp for your PM CPMS,

Y_1 = the three run average lb/MMBtu PM concentration,

X_1 = the three run average milliamp output from you PM CPMS, and

z = the milliamp equivalent of your instrument zero determined from (B)(i).

(4) Determine your source specific 30-day rolling average operating limit using the lb/MMBtu per milliamp value from Equation 11 in equation 12, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_1 = z + \frac{0.75(L)}{R} \quad (\text{Eq. 12})$$

Where:

O_1 = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps.

L = your source emission limit expressed in lb/MMBtu,

z = your instrument zero in milliamps, determined from (B)(i), and

R = the relative lb/MMBtu per milliamp for your PM CPMS, from Equation 11.

(C) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your 30-day rolling average operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 13 and you must submit all compliance test and PM CPMS data according to the reporting requirements in paragraph (b)(4)(ii)(F) of this section.

$$O_h = \frac{1}{n} \sum_{i=1}^n X_i \quad (\text{Eq. 13})$$

Where:

X_i = the PM CPMS data points for all runs i ,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

(D) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new operating hour. Use Equation 14 to determine the 30-day rolling average.

$$30\text{-day} = \frac{\sum_{i=1}^n Hpvi}{n} \quad (\text{Eq. 14})$$

Where:

30-day = 30-day average.

Hpvi = is the hourly parameter value for hour i

n = is the number of valid hourly parameter values collected over the previous 720 operating hours.

(E) Use EPA Method 5 of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. Conduct each test run to collect a minimum sample volume specified in Tables 1, 2, or 11 through 13 to this subpart, as applicable, for determining compliance with a new source limit or an existing source limit. Calculate the average of the results from three runs to determine compliance. You need not determine the PM collected in the impingers (“back half”) of the Method 5 particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the “back half” for other purposes.

(F) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. (iii) For a particulate wet scrubber, you must establish the minimum pressure drop and liquid flow rate as defined in §63.7575, as your operating limits during the three-run performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for PM and TSM emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests.

(iii) For an electrostatic precipitator (ESP) operated with a wet scrubber, you must establish the minimum total secondary electric power input, as defined in §63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit. (These operating limits do not apply to ESP that are operated as dry controls without a wet scrubber.)

(iv) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in §63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(v) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in §63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(vi) The operating limit for boilers or process heaters with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.7525, and that each fabric filter must be operated such that the bag leak detection system alert is not activated more than 5 percent of the operating time during a 6-month period.

(vii) 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.

(viii) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a SO₂ CEMS is to install and operate the SO₂ according to the requirements in §63.7525(m) establish a maximum SO₂ emission rate equal to the highest hourly average SO₂ measurement during the most recent three-run performance test for HCl.

(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.

$$P90 = \text{mean} + (SD \times t) \quad (\text{Eq. 15})$$

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 ($t_{0.1}$) 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.

$$HCl = \sum_{i=1}^n (Ci90 \times Qi \times 1.028) \quad (\text{Eq. 16})$$

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 11 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.

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.

$$\text{Mercury} = \sum_{i=1}^n (Hgi90 \times Qi) \quad (\text{Eq. 17})$$

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 11 of this section.

Qi = 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 Qi.

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.

$$Metals = \sum_{i=1}^n (TSM90i \times Qi) \quad (Eq. 18)$$

Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

TSMi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = 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 Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.

(d) If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit.

(e) You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility at the time of the assessment.

(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 item 5 of Table 3 of this subpart.

(i) If you opt to comply with the alternative SO₂ CEMS operating limit in Tables 4 and 8 to this subpart, you may do so only if your affected boiler or process heater:

	<p>(1) Has a system using wet scrubber or dry sorbent injection and SO₂ CEMS installed on the unit; and</p> <p>(2) At all times, you operate the wet scrubber or dry sorbent injection for acid gas control on the unit consistent with §63.7500(a)(3); and</p> <p>(3) You establish a unit-specific maximum SO₂ operating limit by collecting the minimum hourly SO₂ emission rate on the SO₂ CEMS during the paired 3-run test for HCl. The maximum SO₂ operating limit is equal to the highest hourly average SO₂ concentration measured during the most recent HCl performance test.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7174, Jan. 31, 2013]</p>
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Efficiency Credits Earned from Implementation of Energy Conservation Measures

§63.7533	<p>(a) If you elect to comply with the alternative equivalent output-based emission limits, instead of the heat input-based limits listed in Table 2 to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using efficiency credits according to the procedures in this section. You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to §63.7522(e) and for demonstrating monthly compliance according to §63.7522(f). Owners or operators using this compliance approach must establish an emissions benchmark, calculate and document the efficiency credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the efficiency credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler. Additional guidance from the Department of Energy on efficiency credits is available at: http://www.epa.gov/ttn/atw/boiler/boilerpg.html.</p> <p>(b) For each existing affected boiler for which you intend to apply emissions credits, establish a benchmark from which emission reduction credits may be generated by determining the actual annual fuel heat input to the affected boiler before initiation of an energy conservation activity to reduce energy demand (<i>i.e.</i>, fuel usage) according to paragraphs (b)(1) through (4) of this section. The benchmark shall be expressed in trillion Btu per year heat input.</p> <p>(1) The benchmark from which efficiency credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source. The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.</p> <p>(2) Determine the starting point from which to measure progress. Inventory all fuel purchased and generated on-site (off-gases, residues) in physical units (MMBtu, million cubic feet, etc.).</p> <p>(3) Document all uses of energy from the affected boiler. Use the most recent data available.</p> <p>(4) Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. If possible, use actual data that are current and timely rather than estimated data.</p>
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(c) Efficiency credits can be generated if the energy conservation measures were implemented after January 1, 2008 and if sufficient information is available to determine the appropriate value of credits.

(1) The following emission points cannot be used to generate efficiency credits:

(i) Energy conservation measures implemented on or before January 1, 2008, unless the level of energy demand reduction is increased after January 1, 2008, in which case credit will be allowed only for change in demand reduction achieved after January 1, 2008.

(ii) Efficiency credits on shut-down boilers. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. In this case, the bench established for the affected boiler to which the credits from the shutdown will be applied must be revised to include the benchmark established for the shutdown boiler.

(2) For all points included in calculating emissions credits, the owner or operator shall:

(i) Calculate annual credits for all energy demand points. Use Equation 19 to calculate credits. Energy conservation measures that meet the criteria of paragraph (c)(1) of this section shall not be included, except as specified in paragraph (c)(1)(i) of this section.

(3) Credits are generated by the difference between the benchmark that is established for each affected boiler, and the actual energy demand reductions from energy conservation measures implemented after January 1, 2008. Credits shall be calculated using Equation 19 of this section as follows:

(i) The overall equation for calculating credits is:

$$ECredits = \left(\sum_{i=1}^n EIS_{iactual} \right) \div EI_{baseline} \quad (\text{Eq. 19})$$

Where:

ECredits = Energy Input Savings for all energy conservation measures implemented for an affected boiler, expressed as a decimal fraction of the baseline energy input.

EIS_{iactual} = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

EI_{baseline} = Energy Input baseline for the affected boiler, million Btu per year.

n = Number of energy conservation measures included in the efficiency credit for the affected boiler.

(ii) [Reserved]

(d) The owner or operator shall develop, and submit for approval upon request by the Administrator, an Implementation Plan containing all of the information required in this paragraph for all boilers to be included in an efficiency credit approach. The Implementation Plan shall identify all existing affected boilers to be included in applying the efficiency credits. The Implementation Plan shall include a description of the energy conservation measures implemented and the energy savings generated from each measure and an explanation of the criteria used for determining that savings. If requested, you must submit the implementation plan for efficiency credits to the Administrator for review and approval no later than 180 days before the date on which the facility intends to demonstrate compliance using the efficiency credit approach.

	<p>(e) The emissions rate as calculated using Equation 20 of this section from each existing boiler participating in the efficiency credit option must be in compliance with the limits in Table 2 to this subpart at all times the affected unit is operating, following the compliance date specified in §63.7495.</p> <p>(f) You must use Equation 20 of this section to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the efficiency credit compliance approach do not exceed the emission limits in Table 2 to this subpart.</p> $E_{adj} = E_m \times (1 - ECredits) \quad (Eq. 20)$ <p>Where:</p> <p>E_{adj} = Emission level adjusted by applying the efficiency credits earned, lb per million Btu steam output (or lb per MWh) for the affected boiler.</p> <p>E_m = Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.</p> <p>ECredits = Efficiency credits from Equation 19 for the affected boiler.</p> <p>(g) As part of each compliance report submitted as required under §63.7550, you must include documentation that the energy conservation measures implemented continue to generate the credit for use in demonstrating compliance with the emission limits.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7178, Jan. 31, 2013]</p>
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Continuous Compliance Requirements

§63.7535	<p>(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).</p> <p>(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.</p> <p>(c) You may not use data recorded during 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.</p>
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	<p>(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 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 annual report.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7179, Jan. 31, 2013]</p>
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Continuous Compliance Demonstration: Emission Limitations, Fuel Specifications and Work Practice Standards

§63.7540	<p>(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.</p> <p>(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.</p> <p>(2) As specified in §63.7550(c), 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:</p> <p>(i) Lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.</p> <p>(ii) 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.</p> <p>(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 12 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.</p> <p>(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).</p>
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(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 12 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 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 13 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 13 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) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alert and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the periods which would cause an alert are no more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alert, the time corrective action was initiated and completed, and a brief description of the cause of the alert and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the conditions exist for an alert. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alert time is counted. If corrective action is required, each alert shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alert time shall be counted as the actual amount of time taken to initiate corrective action.

(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 operating.

(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) The owner or operator of a boiler or process heater using a PM CPMS or a PM CEMS to meet requirements of this subpart shall install, certify, operate, and maintain the PM CPMS or PM CEMS in accordance with your site-specific monitoring plan as required in §63.7505(d).

(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. 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 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 NO_x 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, an annual 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.

(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) If you are using a CEMS measuring mercury emissions to meet requirements of this subpart you must install, certify, operate, and maintain the mercury CEMS as specified in paragraphs (a)(14)(i) and (ii) of this section.

(i) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B or operate a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(15) If you are using a CEMS to measure HCl emissions to meet requirements of this subpart, you must install, certify, operate, and maintain the HCl CEMS as specified in paragraphs (a)(15)(i) and (ii) of this section. This option for an affected unit takes effect on the date a final performance specification for an HCl CEMS is published in the Federal Register or the date of approval of a site-specific monitoring plan.

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days or 720 hours. For each day in which the unit operates, you must obtain hourly HCl concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a HCl CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the HCl mass emissions rate to the atmosphere according to the requirements of the applicable performance specification of 40 CFR part 60, appendix B, and the quality assurance procedures of 40 CFR part 60, appendix F.

(16) If you demonstrate compliance with an applicable TSM 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 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 14 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 14 of §63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(18) If you demonstrate continuous PM emissions compliance with a PM CPMS you will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. You will conduct your performance test using the test method criteria in Table 5 of this subpart. You will use the PM CPMS to demonstrate continuous compliance with this operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(i) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new boiler or process heater operating hour.

(ii) For any deviation of the 30-day rolling PM CPMS average value from the established operating parameter limit, you must:

(A) Within 48 hours of the deviation, visually inspect the air pollution control device (APCD);

(B) If inspection of the APCD identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(iii) PM CPMS deviations from the operating limit leading to more than four required performance tests in a 12-month operating period constitute a separate violation of this subpart.

(19) If you choose to comply with the PM filterable emissions limit by using PM CEMS you must install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (a)(19)(i) through (vii) of this section. The compliance limit will be expressed as a 30-day rolling average of the numerical emissions limit value applicable for your unit in Tables 1 or 2 or 11 through 13 of this subpart.

(i) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using test criteria outlined in Table V of this rule. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

(ii) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

(A) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually.

(B) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years.

(iii) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (i) of this section.

(iv) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler or process heater operating hours.

(v) You must collect data using the PM CEMS at all times the unit is operating and at the intervals specified this paragraph (a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(vi) You must use all the data collected during all boiler or process heater operating hours in assessing the compliance with your operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(vii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(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 item 5 of Table 3 of this subpart.

[78 FR 7179, Jan. 31, 2013]

Continuous Compliance Demonstration: Emissions Averaging Provision

§63.7541	<p>(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.</p> <p>(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in §63.7522(f) and (g).</p> <p>(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) and (ii) of this section.</p> <p>(i) For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.</p> <p>(ii) For each group of units participating in the emissions averaging option where each unit in the group is equipped with a dry control system and vented to a common stack that does not receive emissions from non-affected units, maintain opacity at or below the applicable limit at the common stack.</p> <p>(3) For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 30-day rolling average parameter values at or above the operating limits established during the most recent performance test.</p> <p>(4) For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling average parameter values consistent with the approved monitoring plan.</p> <p>(5) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.</p> <p>(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section is a deviation.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7182, Jan. 31, 2013]</p>
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Notification, Reports, and Records

§63.7545	<p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
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(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), 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).

(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,

(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) Identification of whether you plan to demonstrate compliance by emissions averaging and identification of whether you plan to demonstrate compliance by using efficiency credits through energy conservation:

(i) If you plan to demonstrate compliance by emission averaging, report the emission level that was being achieved or the control technology employed on January 31, 2013.

(ii) [Reserved]

(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 complies with the required initial tune-up 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) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. 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) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategories under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(h) If you have switched fuels or made a physical change to the boiler 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:

	<p>(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.</p> <p>(2) The currently applicable subcategory under this subpart.</p> <p>(3) The date upon which the fuel switch or physical change occurred.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7183, Jan. 31, 2013]</p>
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Reporting Requirements

§63.7550	<p>(a) You must submit each report in Table 9 to this subpart that applies to you.</p> <p>(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 an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or 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.</p> <p>(1) 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 July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in §63.7495.</p> <p>(2) The first 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.</p> <p>(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. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.</p> <p>(4) Each subsequent 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.</p> <p>(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.</p> <p>(1) If the facility is subject to a the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section.</p>
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(2) If a facility is complying with the fuel analysis they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (vi), (x), (xi), (xiii), (xv) and paragraph (d) of this section.

(3) If a facility is complying with the applicable emissions limit with performance testing they must submit a compliance report with the information in (c)(5)(i) through (iv), (vi), (vii), (ix), (xi), (xiii), (xv) and paragraph (d) of this section.

(4) If a facility is complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (vi), (xi), (xiii), (xv) through (xvii), 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 12 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 13 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 14 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).

(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) If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in §63.7545(e)(5)(i).

(xvi) For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values based on the daily CEMS (CO and mercury) and CPMS (PM CPMS output, scrubber pH, scrubber liquid flow rate, scrubber pressure drop) 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.

(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, 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 or operating limit 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 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 (defined in §63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart and the compliance reports required in §63.7550(b) to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703.

	<p>The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, you must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.</p> <p>(2) Within 60 days after the date of completing each CEMS performance evaluation test (defined in 63.2) you must submit the relative accuracy test audit (RATA) data to the EPA's Central Data Exchange by using CEDRI as mentioned in paragraph (h)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.</p> <p>(3) You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (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 report you must submit the report to the Administrator at the appropriate address listed in §63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.</p> <p>[78 FR 7183, Jan. 31, 2013]</p>
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Record Keeping Requirements

§63.7555	<p>(a) You must keep records according to paragraphs (a)(1) and (2) of this section.</p> <p>(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).</p> <p>(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).</p> <p>(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.</p> <p>(1) Records described in §63.10(b)(2)(vii) through (xi).</p> <p>(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).</p> <p>(3) Previous (<i>i.e.</i>, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).</p> <p>(4) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).</p> <p>(5) Records of the date and time that each deviation started and stopped.</p>
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(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, 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) 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.

(4) 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 12 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.

(5) 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 13 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.

(6) 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.

	<p>(7) 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.</p> <p>(8) 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.</p> <p>(9) 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 14 of §63.7530, that were done to demonstrate 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.</p> <p>(10) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.</p> <p>(11) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.</p> <p>(e) If you elect to average emissions consistent with §63.7522, you must additionally keep a copy of the emission averaging implementation plan required in §63.7522(g), all calculations required under §63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with §63.7541.</p> <p>(f) If you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to §63.7533, you must keep a copy of the Implementation Plan required in §63.7533(d) and copies of all data and calculations used to establish credits according to §63.7533(b), (c), and (f).</p> <p>(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.</p> <p>(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.</p> <p>(i) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.</p> <p>(j) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.</p> <p>[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7185, Jan. 31, 2013]</p>
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Record Retention Requirements

§63.7560	<p>(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).</p> <p>(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.</p> <p>(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.</p>
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Appendix A

Greenhouse Gas Facility Wide Reporting

Greenhouse Gases:

Carbon dioxide (CO₂),
Nitrous oxide (N₂O),
Methane (CH₄),
Hydrofluorocarbons (HFCs),
Perfluorocarbons (PFCs), and
Sulfur Hexafluoride (SF₆).

CO₂e reported for the year 2012

GHG EMISSIONS (Metric tons per year)							
Pollutants:	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	Total
Emissions (tpy):	106,726	2.6	0.09	N/A	N/A	N/A	
*GWP:	1	21	310	**	**	23,900	
CO ₂ e (tpy):	106,726	54.6	27.9	N/A	N/A	N/A	106,808.5

GHGs in table above are Potential to Emit (PTE) for year 2012. Actual CO₂e was 2,217 metric tons.

*Global Warming Potential (GWP): The capacity to heat the atmosphere, calculated as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram (kg) of a substance relative to that of 1 kg of CO₂. GWP shall be calculated according to the factors for a 100-year time horizon, as stated in 40 CFR Part 98 Subpart A Table A-1 (Global Warming Potentials).

** GWP varies based on each pollutant.