

MIAMI-DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
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October 21, 1999

CERTIFIED MAIL P 343 639 730
RETURN RECEIPT REQUESTED

PERMITTEE:

Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Fl 33441

Permit No. 0250020-008-AC
Issue Date October 21, 1999
Expiration Date: October 20, 2002

Authorized Representative:
Scott Quaas
Environmental Manager

PROJECT AND LOCATION:

Project: The construction of a dry process portland cement plant with preheater/calcliner/kiln, cooler, coal mill and raw mill to replace existing kilns and coolers system. A new finish mill will be constructed in addition to the existing mills.

Facility Description: Portland Cement Plant (SIC # 3241)
Location: 11000 N.W. 121 Way, Miami-Dade County, Florida 33178
Lat./Long.: 25° 52' 30" N / 80° 22' 30" W
UTM: Zone 17; 562.8 Km. E; 2861.7 Km. N

Dear Mr. Quaas:

This is Permit Number 0250020-008-AC to construct an air pollution source issued by the **Miami-Dade County Department of Environmental Resources Management (DERM)** pursuant to **Chapter 24, Code of Miami-Dade County and Chapter 403.087, Florida Statutes (F.S.)**. This is a new construction permit to authorize construction of the emissions units described in this permit.

The Florida Department of Environmental Protection (FDEP) has permitting jurisdiction under Section 403.087, Florida Statutes (F.S.). However, in accordance with Section 403.182, F.S., the FDEP recognizes the DERM as the approved local air pollution control program of Miami-Dade County. Through a Specific Operating Agreement, the FDEP delegated to the DERM the authority to issue or deny permits for this type of air pollution source located in Miami-Dade County.



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NOTICE OF RIGHTS:

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to **Section 120.68, F.S.**, by the filing of a Notice of Appeal pursuant to **Rule 9.110, Florida Rules of Appellate Procedure**, with the Clerk of the Miami-Dade County Department of Environmental Resources Management, Air Facilities Section, at 33 SW 2nd Avenue, Suite 900, Miami, Florida 33130-1540 and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the Clerk of the DERM.

STATEMENT OF BASIS:

This permit is issued under the provisions of **Chapter 24, Code of Miami-Dade County, Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, and 62-204 through 62-297**, and in conformance with all existing regulations of the FDEP and the DERM rules. The above named owner or operator is hereby authorized to perform the work or construct the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the DERM and made a part hereof and specifically described in this permit.

Attached appendices and Tables made a part of this permit:

- | | |
|------------|--|
| Table 1-1 | Allowable Opacity Limits |
| Table 1-2 | Air Pollutants Standards and Terms |
| Table 2-1 | Compliance Requirements |
| Appendix A | General Conditions |
| Appendix B | National Emission Standards for Hazardous Air Pollutants for the Portland Cement Plant |

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

The currently permitted Tarmac facility consists of: cement distribution rail truck loadouts and packhouse with two baggers, coal handling system, twelve cement storage silos serving mills 1 through 4, slag dryer, insuflation system, cement plant, ready mix plant, three kilns, three coolers, four finish mills with airslides, conveyors and dust collectors, clinker handling and storage system. This permit is for the construction of a dry process portland cement plant with preheater/calcliner/kiln, cooler, coal mill and raw mill to replace existing kilns and coolers system, capable of producing upto 160 tons per hour, and approximately 1,240,000 tons per year (TPY) of clinker. A new finish mill will be constructed in addition to the existing mills.

EMISSION UNITS

This permit addresses the following emission units:

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 003	Coal Handling	Coal Mill, Pet Coke Feed Bin, Coal Feed Bin Coal Handling and Storage (Fugitive)
ARMS No. 021	Raw Mill/Pyroprocessing Unit	Pyroprocessing consist of the Preheater/Calcliner, Kiln, Cooler and Raw Mill
ARMS No. 010, 011, 012, 13 and 022	Finish Mill #1 - #5	Finish Mill # 1- #5 and associated conveyors, separators and coolers.
ARMS No. 008 & 009	Clinker Handling and Storage	Clinker Silos 1,2,4,5,11,12, 18-28 and Slag Dryer
ARMS No. 014, 015 and 016	Cement Storage, Packhouse & Loadout	Cement Silos 1-12, Bulk Loadout Unit #1,#2 and #3 and Packhouse

SUBSECTION B. REGULATORY CLASSIFICATION

The Tarmac America Pensuco Cement Plant directly emits more than 100 tons per year (TPY) of several regulated air pollutants and emits over 10 TPY of at least one hazardous air pollutant. Therefore it is classified as a "Major Source of Air Pollution or Title V Source," per the definitions in Rule 62-204.200, F.A.C.

This industry is listed in Table 62-212.400-1 of Chapter 62-212, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 TPY of carbon monoxide, volatile organic compounds, sulfur dioxide, nitrogen oxides, or particulate matter characterize the installation as a major facility per the definitions in Rule 62-210.200, F.A.C.



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The facility is also subject to 40 CFR Subpart F, New Source Performance Standards (NSPS) for Portland Cement Plants, incorporated by reference in Rule 62-204.800, F.A.C. and 40 CFR 63, Subpart LLL, Portland Cement Manufacturing Plant

SIGNIFICANT DATES:

Public Notice of Intent Published: April 14, 1999
Additional Information Received: December 1, 1998
Application Received: June 30, 1998

SECTION II. FACILITY-WIDE CONDITIONS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Air Division of the Dade County Department of Environmental Resources Management (DERM), Suite 900, 33 Southwest Second Avenue, Miami, Florida 33130-1540.
- A.2 Specific and General Conditions: The owner or operator shall be subject to the specific and general conditions of this permit and the owner or operator shall be aware of, and operate under, the attached General Conditions, attached as Appendix A of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [F.A.C. Rule 62-4.160]
- A.3 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.4 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- A.5 Expiration: This air construction permit shall expire on October 20, 2002 [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Miami-Dade County Department of Environmental Resources Management, Air Facilities Section, prior to 50 days before the expiration of the permit. However, the permittee shall promptly notify the DERM of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C]
- A.6 Other Permits: This air pollution permit does not preclude the owner or operator from obtaining any other types of required permits, licenses or certifications from the DERM or other departments or agencies.
- A.7 Title V Permit is Required: This permit authorizes construction and/or installation of the permitted emission units and initial operation to determine compliance with the FDEP and the DERM rules. An application for a Title V operation permit must be submitted to the Miami-Dade County Department of Environmental Resources Management, Air Facilities Section, **90 days before the expiration date of this permit, but no later than 180 days after commencing operation.** To apply for a Title V operation permit, the applicant shall submit the appropriate application form, and such additional information as the DERM may by law require. [F.A.C. Rule 62-4.030, 62-4.050, and 62-213.420(1)(a)2.]
- A.8 Applicable Regulations: Unless otherwise indicated, the construction of a dry process Portland Cement Plant and associated equipment shall be in accordance with the capacities and specifications stated in the application. This facility is subject to all applicable provisions of Chapter 403, F.S and Florida Administrative Code Chapters 62-4; 62-103; 62-204, 62-210,



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62-212, 62-213, 62-296, 62-297; and the Code of Federal Regulations Section 40, Part 60. Specifically, this facility is subject to the New Source Performance Standards (NSPS) for Portland Cement Manufacturing Plant identified by the Code of Federal Regulations Section 40 Part 60, Subpart F and National Emission Standards for Hazardous Air Pollutants for Portland Cement Plant, 40 CFR 63, Subpart LLL. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

A.9 Chapter 24-Code of Metropolitan Dade County. This facility is subject to all applicable requirements of this Chapter.

SUBSECTION B. EMISSION LIMITING STANDARDS

B.1 General Visible Emissions Standard: [Rule 62-296.320 (4)(b)1 & 4, F.A.C.] Unless otherwise specified by rule or permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere any air pollutants from new or existing emissions units, the opacity of which is equal to:

- Visible emissions from PM sources shall not exceed 20% opacity.

B2 Unconfined Emissions of Particulate Matter [Rule 62-296.320(4)(c)2, F.A.C.]

- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions may include the following:
 1. Paving and maintenance of roads, parking areas and yards.
 2. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 3. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 4. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 5. Landscaping or planting of vegetation.
 6. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 7. Confining abrasive blasting where possible.
 8. Enclosure or covering of conveyor systems.

In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the

technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

NOTE: Facilities that cause frequent, valid complaints may be required by the DERM, Air Facilities Section to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

B.3 General Pollutant Emission Limiting Standards:

- (a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emissions control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320 (1)(a), F.A.C.]
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320 (2), F.A.C.]

SUBSECTION C. OPERATION AND MAINTENANCE

- C.1 **Changes/Modifications:** The owner or operator shall submit to the DERM, Air Facilities Section, for review and obtain approval for any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain an air construction permit prior to making the desired change. [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]
- C.2 **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the owner or operator shall notify the DERM, Air Facilities Section as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]
- C.3 **Circumvention:** The owner or operator shall not circumvent any air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]

C.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]

- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the DERM, Air Facilities Section for longer duration. [Rule 62-210.700(1), F.A.C.]
- (b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Air Facilities Section of the DERM within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]

SUBSECTION D. MONITORING OF OPERATIONS

D.1 Determination of Process Variables:

- (a) The permittee shall install, operate, and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310 (5), F.A.C.]
- (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

SUBSECTION E. TEST REQUIREMENTS

- E.1 Test Performance Within 60 days after achieving the maximum production rate at which this facility will be operated, but not later than 180 days after initial startup up and annually thereafter, (except for VOC), the owner or operator shall simultaneously conduct performance test(s) for PM/PM₁₀, NO_x, SO₂, CO, VE and VOC (initial) pursuant to 40 CFR 60.8, Performance Tests, Rule 62-296.310 F.A.C., 40 CFR 60, Appendix A and 40 CFR 51, Appendix M. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2). F.A.C. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]

- E.2 Test Procedures and Test Reports shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310 (4), F.A.C.]
- E.3 Test Notification: The owner or operator shall notify the DERM, Air Facilities Section in writing at least (30) days (initial) and (15) days (annual) prior to conducting each scheduled compliance test. The notification shall include the test date, the expected test time, the facility contact person for the test, and the person or company conducting the test. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- E.4 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204 through 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the DERM., Air Facilities Section. [Rule 62-297.310(7)(b), F.A.C.]
- E.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C.
- E.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.

SUBSECTION F. REPORTS AND RECORDS

- F.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [62-4.160(14)(b), F.A.C.]
- F.2 Emission Compliance Stack Test Reports
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the DERM, Air Facilities Section as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310, F.A.C.]
 - (b) The *test report* shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310 (8), F.A.C.
- F.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Air Facilities Section of the DERM, within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7. [Rules 62-4.130 and 62-210.700(6), F.A.C.]



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- F.4 Annual Operating Report for Air Pollutant Emitting Facility. Before March 1st of each year, the owner or operator shall submit to the Department this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]
- F.5 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance (O&M) log to include, at a minimum, the following information:
- (1) Calibration logs for all emission measuring instruments.
 - (2) Maintenance/repair logs for any work performed on equipment or emission measuring instrument which is subject to this permit.
 - (3) All measurements, records, and any other data required to be maintained by Tarmac shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the DERM or the FDEP staff upon request.

SUBSECTION G. OTHER REQUIREMENTS

- G.1 Used Oil and Grease: Used oil and grease burned at this facility shall not be a hazardous waste as defined by 40 CFR Part 261.3 or Rule 62-730.030, F.A.C. It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. These fuels shall be burned in compliance with Section 403.769(3), Florida Statutes.
- G.2 Other Regulations: The owner or operator shall comply with applicable provisions of Rule 62-710, Used oil Management and 40 CFR Parts 279, Standards for the Management of Used Oil.
- G.3 No Hazardous wastes or hazardous materials shall be stored, collected, handled or burned in the new pyroprocessing system.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. COMMON CONDITIONS: 40 CFR 60 NEW SOURCE PERFORMANCE STANDARDS

EMISSION UNITS

This section addresses the following emission units.

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 003	Coal Handling	Coal Mill, Pet Coke Feed Bin, Coal Feed Bin
ARMS No. 021	Raw Mill/Pyroprocessing Unit	Pyroprocessing consist of the Preheater/Calcliner, Kiln, Cooler and Raw Mill
ARMS No. 010, 011, 012, 013 and 022	Finish Mill #1 - #5	Finish Mill # 1- #5 and associated conveyors, separators and coolers.
ARMS No. 008 & 009	Clinker Handling and Storage	Clinker Silos 1,2,4,5,11,12, 18-28 and Slag Dryer
ARMS No. 014, 015 and 016	Cement Storage, Packhouse & Loadout	Cement Silos 1-12, Bulk Loadout Unit #1,#2 and #3 and Packhouse

These emission units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A, adopted by reference in Rule 62-204.800(7), F.A.C.

- A.1 [40 CFR 60.7, Notification and record keeping]
- A.2 [40 CFR 60.8, Performance tests]
- A.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- A.4 [40 CFR 60.12, Circumvention]
- A.5 [40 CFR 60.13, Monitoring requirements]
- A.6 [40 CFR 60.19, General notification and reporting requirements]

This cement plant shall comply with all applicable provisions of the 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants, 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants and 40 CFR 63, Subpart LLL, Portland Cement Manufacturing Plant.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
ARMS No. 003	Coal Handling	Coal Mill, Pet Coke Feed Bin, Coal Feed Bin Coal Handling System and Storage

The existing rail delivery system for coal, consisting of a rail dump operation, temporary and active coal storage piles, and coal hopper, will be used for the new plant. Petroleum coke will be utilized as fuel, and will be handled in the same manner as coal. The proposed coal mill system will consist of a Fuller coal mill, which will grind up to 23 TPH of coal, a conveyor, two feed bins, and two storage bins, one for the kiln fuel and one for the calciner fuel. The raw lump coal/petcoke is fed to the coal mill where the coal/petcoke is ground and dried by hot preheater gas. The exhaust gases from the mill exit to a baghouse dust collector. The entrained coal/petcoke dust is removed in the dust collector and the cleaned gas is vented to the atmosphere via the plant common stack. The coal/petcoke is then transferred to storage bins. From the storage bins, the fuel is pneumatically conveyed to the kiln and calciner burners.

This emission unit shall comply with all applicable provisions of the 40 CFR 60 Subpart Y New Source Performance Standards for Portland Cement Plants, Subpart F. [Rule 62-204.800(7)(b)8., F.A.C]

EMISSION LIMITATIONS

- B.1 The maximum allowable emission rates for the coal handling system shall not exceed the limits listed in Table 1-1, Air Pollutant Standards and Terms (attached). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.2 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- B.3 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.4 The coal handling maximum production rate reflects coal/petroleum coke throughput and shall not exceed 176,080 TPY. [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.5 The coal handling maximum hourly rate reflects coal/petroleum coke shall not exceed 23 TPH average rate. [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

TEST METHODS AND COMPLIANCE PROCEDURES

B.6 Particulate and fugitive emissions from coal handling facilities shall be minimized by following the procedures listed below: [Rule 62-296.320(4)(c), F.A.C.]

- (1) All conveyers and transfer points shall be enclosed or covered to preclude particulate emissions (except those directly associated with coal stacking/reclaiming).
- (2) Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion.
- (3) Water sprays or chemical wetting agents and stabilizers shall be applied to storage piles, handling equipment, etc., during dry periods as necessary to all facilities to maintain an opacity of less than 20 percent at the property line for fugitive emission sources.

SUBSECTION C. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
ARMS No. 021	Raw Mill/Pyroprocessing Unit	Pyroprocessing consist of the Preheater/Calciner, Kiln, Cooler and Raw Mill.

The proposed raw material mill system consist of a vertical roller mill capable of grinding up to 315.6 TPH of raw feed (limestone and fly ash). The raw mill will use hot preheater and cooler gases to dry the material from a feed moisture of 12% to a moisture of less than 1%. An auxiliary air heater is provided at the raw mill to provide additional heat for drying. The maximum heat input to the heater is 88 MMBtu/hr. The raw mill is vented to cyclones and then to the main plant dust collector (baghouse) to remove entrained product. The product from the cyclones and dust collector is combined and conveyed to the storage and blending silo., while the cleaned gas is vented to the atmosphere through the plant common stack.

The proposed pyroprocessing system will be capable of producing up to 160 TPH, and 1,240,000 TPY of clinker. The raw feed is introduced to the five-stage preheater/calciner from the raw mill. The feed is preheated in the first four stages using hot gases from the calciner/kiln. The fifth stage is the calciner, where the fuel is burned to achieve approximately 90% of the total material calcination. The maximum heat input to calciner is 252 MMBtu/Hr. The calcinated feed then enters the kiln, where the remaining calcination takes place. Maximum heat input to the kiln is 228 MMBtu/hr. The calciner exit gas is recycled to the raw and coal mills. The rotary kiln delivers hot clinker at approximately 1450 degrees Celsius to the cooler.

The proposed cooler utilizes fans to force ambient air through the hot clinker bed to cool the hot clinker to 65 degrees Celsius above the ambient temperature. Combustion air required in the kiln and calciner is obtained from the cooler exhaust gases, while the rest of the gas is passed through cyclones to remove entrained clinker dust before recycle of the gases to the raw mill.

Control equipment for the raw mill/preheater/calciner/kiln/cooler:

The particulate emissions will be controlled by a reverse-jet fabric filter or approved equivalent. The design gas volume is 359,000 acfm at 181 °F while the raw mill is operating and 446,200 acfm at 500 °F while raw mill is down. The filter area has not been determined, and at design gas volume, the air-to-cloth ratio will be approximately 2.0 acfm/ft².

This emission unit shall comply with all applicable provisions of the 40 CFR 63 New Source Performance Standards for Portland Cement Plants, Subpart LLL.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

EMISSION LIMITATIONS

- C.1 The maximum allowable emission rates for the kiln, clinker cooler, raw mill, and preheater/precalciner shall not exceed the limits listed in Table 1-2, Air Pollutant Standards and Terms (attached). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- C.2 In order to minimize excess emissions during startup/shutdown/malfunction this emission units shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]
- C.3 The emission standard for sulfur dioxide is 0.8 lb/MMBtu for liquid fuel and 1.2 lb/MMBtu for solid fuel based on a 24 hour average. [Miami-Dade County, Chapter 24-17(2)(b)(i)]

OPERATIONAL LIMITATIONS

- C.4 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- C.5 The kiln clinker production rate shall not exceed 160 tons per hour (TPH). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- C.6 **Fuel Combustion**
 - (1) Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total heat input rate of 568 MMBtu/hr and shall consist of: bituminous coal, natural gas, petroleum coke, No. 2 fuel oil, on-specification and off-specification used oil.

Use of fuels other than those listed above is prohibited.

COAL AND PETROLEUM COKE

- (2) The coal usage rate shall not exceed 23 TPH based on a 24-hour average. The petroleum coke usage rate shall not exceed 20 TPH on a 24 hour basis.

USED OIL

- (3) The constituents and properties of the *on-spec used oil* shall comply with the following allowable concentration levels, as stipulated and defined in 40 CFR 279.10 (July 1, 1996 version), which is adopted by reference in **Rule 62-730.181, F.A.C.**

Constituent/Property	Allowable Concentration
Cadmium	2 ppm maximum
Arsenic	5 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	140 ° F minimum
Polychlorinated Byphenyls (PCBs)	Less than 2 ppm

- (4) *On-specification used oil* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1996 version). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The on-spec used oil shall be burned in compliance with Section 403.769(3), F.S.
- (5) *Off-specification used oil* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1996 version). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The off-spec used oil shall be burned in compliance with Section 403.769(3), F.S.
- (6) Any *on and off-specification used oil samples* as required by *Specific Condition No. C.6(3), (4) and (5) and C.23* shall be analyzed by *EPA Recommended Analytical Procedures for Used Oil for the following constituent/property, associated unit, and using the test methods indicated:*

Constituent/Property	Units	Test Methods
Cadmium	ppm	EPA SW-846(6010)
Arsenic	ppm	EPA SW-846(6010)
Chromium	ppm	EPA SW-846(6010)
Lead	ppm	EPA SW-846(6010)
Total Halogens	ppm	EPA SW-846(9252)
Sulfur	percent	ASTM D129 or ASTM D1552
Flash Point	degree F	EPA SW-846(1010)
Heat of Combustion	Btu/gal	ASTM D240
Density	lbs/gal	
Polychlorinated Byphenyls (PCB's)	ppm	EPA SW-846(0010) and EPA 680
Ash		

NOTE: Other test methods may be used only after receiving written prior approval from the Department.

- C.7 Any other operating parameters (including control equipment operating parameters) established during compliance testing and/or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit [Rule 62-297.310, F.A.C. and 62-4.070(3), F.A.C.]

MONITORING OF OPERATIONS

- C.8 The owner or operator shall record the daily production and the preheater-kiln system feed rate. The permittee may establish a relationship between material feed rates and production rates of clinker if material feed rates are measured more accurately than clinker production rates and the relationship is accurate within 10%. [Rule 62-204.800(7)(b)9., F.A.C., 40 CFR 60.63(a)]
- C.9 As required by 40 CFR 60.63(b), the owner or operator shall install, calibrate, maintain, and operate in accordance with 40 CFR 60.13 a *continuous opacity monitoring system* to measure the opacity of emissions from the cement kiln and clinker cooler control device stack. [Rule 62-204.800(7)(b)9., F.A.C.]

CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

- C.10 Continuous process monitors shall be installed for CO or O₂ to insure proper combustion practices and for use in determining plant operating parameters to optimize emissions of CO, NO_x, and SO₂. [Rule 62-4.070(3) F.A.C.]
- C.11 A continuous emissions monitoring system (CEMS) shall be installed, calibrated, maintained, operated, and used to determine compliance with the emissions limits for NO_x and SO₂ in Table 1-2. CEMS shall be installed and certified, before the initial performance test, and operated in compliance with 40 CFR 60, Appendix F, Quality Assurance Procedures (1996 version) or other Department-approved QA plan; 40 CFR 60, Appendix B, Performance Specification 1, 2, and 3 (1996 version). [Rules 62-4.070 (3) and 62-204.800, F.A.C.]
- C.12 The CEMS shall calculate and record emission rates in units of pounds of NO_x and SO₂ per hour. Every day, the 24-hour average NO_x and SO₂ emission rate for the previous day shall be calculated. Emissions shall be calculated in units of pounds per hour and pounds per ton of clinker. Daily averages are to be calculated as the arithmetic mean of each monitored operating hour. A monitored operating hour is each hour in which fuel is fired in the unit and at least two emission measurements are recorded at least 15 minutes apart. Data taken during periods of startup, or when fuel is not fired to the unit, or when the CEMS is not calibrated shall be excluded from the daily average.

To the extent the monitoring system is available to record emissions data, the CEMS shall be operated and shall record data at all operating hours when fuel is fired in the unit, including periods of startup, shutdown, load change, continuous operation and malfunction.

Opacity monitor downtimes and excess opacity emissions, which include startup emissions, shall be reported on a quarterly basis using the SUMMARY REPORT in 40 CFR 60.7. A detailed report of the cause, duration, magnitude, and corrective action taken or preventative measures adopted for each excess emission occurrence, and a listing of monitor downtime occurrences shall accompany the

SUMMARY REPORT when the total duration of excess emissions is 1% or greater or if the monitoring system downtime is 5% or greater of the total monitored operating hours.

- C.13 The monitoring device shall meet the applicable requirements of Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to *DERM* for review at least 45 days prior to replacement of a any CEMS. [Rule 62-4.070 (3) F.A.C and Rule 62-204.800, F.A.C.]

TEST METHODS AND PROCEDURES

- C.14 For emissions other than NO_x and SO₂, compliance with the allowable emission limiting standards listed in Table 1-2 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1996, version) and 40 CFR 61 Appendix B 1996, version) adopted by reference in Chapter 62-204, F.A.C.

Method 5	Determination of Particulate Matter Emissions from Stationary Sources.
Method 7 or 7 e	Determination of Nitrogen Oxide Emissions from Stationary Sources
Method 8	Determination of Sulfuric Acid Mist from Stationary Sources.
Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources.
Method 10	Determination of Carbon Monoxide Emissions from Stationary Sources.
Method 23	Determination of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans from Stationary Sources
Method 25 or 25A	Determination of Volatile Organic Compound Emissions from Stationary Sources.
Method 29	Determination of Lead, Beryllium, and Mercury from Stationary Sources.

Note: PM₁₀ will be tested pursuant to 40 CFR 51, Appendix M

Emission testing shall be performed at the kiln/cooler main stack during a period when the kiln precalciner, cooler, raw mill and preheater are operating simultaneously and under normal operating conditions. EPA-reference methods for sampling pollutants shall be as specified in 40 CFR 60, Appendix A.

These emission units shall comply with all applicable requirements of Rule 62-297.310, F.A.C. General Test Requirements and 40 CFR 60.8. Performance Tests. Table 2-1, Compliance Requirements (attached) also lists the EPA methods.

Testing of emissions shall be conducted with the emission unit operating at capacity. The permittee shall provide the *DERM* with a *protocol* that will outline the different fuel scenarios (% of total heat input) that this unit will be burning. Tarmac shall obtain the test data necessary to determine whether this kiln is capable of accommodating the burning of coal or petroleum coke and all of the other supplemental fuels specified on Specific Condition C.6. Fuel Combustion. The fuel scenarios tested shall represent the actual combustion percentage (% of total heat input) that is going to be maintained while burning supplemental fuels during normal operation. The frequency of testing shall be determined by the *DERM*.

Annual test are required for NO_x and SO₂.

Permitted capacity is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the unit may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

C.15 The visible emissions test shall be conducted by a certified observer and should be 180 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur [40 CFR 60.11 and Rule 62-297.310 (7), F.A.C.].

C.16 Compliance with the particulate matter standard contained in Table 1-2 (attached) shall be determined using EPA Method 5. The emission rate (E) of particulate matter shall be computed for each run using the following equation: [FR volume 64 # 113 63.1349, NESHAP Portland Cement Plant, Subpart LLL)

$$E = (c_s \times Q_{sd}) / (P)$$

where:

E = emission rate of particulate matter, kg/Mg of kiln feed.

c_s = concentration of particulate matter, kg/dscm.

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr.

P = total kiln feed (dry basis) rate, Mg/hr.

C.17 The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler. [Rules 62-204.800 and 62-297.401, F.A.C. 40 CFR 60.64(b)(1) - (3)].

C.18 Suitable methods shall be used to determine the kiln feed rate (P), for each run. Material balances over the production system shall be used to confirm the feed rate [40 CFR 60.64(3)].

OPERATING PROCEDURES

C.19 Operating procedures shall include good combustion practices and proper training of all operators and supervisors. The good combustion practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.].

RECORDKEEPING AND REPORTING REQUIREMENTS

C.20 The owner or operator shall submit reports of excess emissions based upon data from the continuous opacity monitoring system. Periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity exceeds that allowed in Table 1-2. The content of these reports must comply with the requirements in 40 CFR 60.7(d). Such reports shall be submitted quarterly pursuant to 40 CFR 60.7 (c). [Rule 62-204.800, F.A.C.; 40 CFR 60.63(d), 60.65(a) and 40 CFR 60.7].

- C.21 In order to document compliance with Specific Condition No. C6(2) **Coal and Petroleum coke**, a fuel usage control system shall be established to assure that the coal and petroleum coke usage rates does not exceed 23 TPH and 20 TPH based on a 24-hour average respectively.
- C.22 In order to document compliance with Specific Conditions No. C.6(3) through C.6(6) **Used Oils**, the following requirements shall be adhered to as a minimum:
- (1) Recordkeeping when burning used oil shall be in accordance with applicable provisions of 40 CFR Part 279, Subpart B and Subpart G (July 1, 1996 version), Standards For The Management of Used Oil and Chapter 62-710, F.A.C.
 - (2) The following shall be recorded on the delivery receipt:
 - the use of tamper proof seals on the delivery receipt
 - the volume of fuel delivery
 - a cross reference to the analysis which establishes that the used oil meets EPA used oil fuel specifications
 - the results of the screening analysis
 - the name of the person performing the test
 - the specific test kit used
 - the amount of oil sampled
 - the amount and name of the solution used to dilute the oil
 - (3) The following procedures shall be implemented:
 - On and off spec used oil that is delivered without a delivery receipt containing all the above information, or which is not properly sealed, or for which the delivery receipt does not contain all the necessary information, is not to be accepted and the DERM is to be notified by phone immediately (with written confirmation to follow), if such a delivery is attempted.
 - Verification by signature on the delivery receipt shall be provided by plant personnel that the delivery truck arrived on site with all seals intact. As delivered samples of all used oil fuel received shall be accumulated through each quarter for each supplier.
 - The results of each sample analysis (on the laboratory's letterhead) shall be submitted to the DERM within 30 days after a sample is taken and analyzed.
 - The dates and quantities of both on and off-spec purchased used oil transferred to the facility storage tank shall be reported quarterly (i.e., Jan-Mar, April-June, July-Sept, and Oct-Dec). The report is due in the month following the ending quarter.
 - The unused portion of the used oil sample shall be retained for six months following the submittal of the analyses in case further testing is required.
- C.23 All measurements, records, and other data required to be reported by the permittee shall be submitted to the DERM on a quarterly basis with the start of commercial operation in accordance with 40 CFR 60.7. All measurements, records and other data required to be maintained by the permittee shall be retained for at least 5 years following the date on which such measurements, records, or data are recorded. The data shall be available to the DERM or FDEP staff as requested. [40 CFR 60.7]

- C.24 The owner or operator shall submit reports of the malfunction information required to be recorded by 40 CFR 60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in de-energization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere. [Rule 62-204.800, F.A.C., 40 CFR 60.65 (c)]
- C.25 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance log to include; at a minimum, the following information:
- The data collected from in-stack monitoring instruments
 - The records on daily feed rates and clinker production rate
 - The amount and type of fuel burned
 - Calibration logs for all instruments
 - Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit;
 - The following fuel records shall be maintained for a minimum of five (5) years and made available upon request:
 1. Coal
 - (a) The coal usage rate in tons per day;
 - (b) The average sulfur content and heating value (Btu/lb) of each coal shipment based upon analysis of a sample representative of the shipment (trainload).
 2. Liquid Fuels
 - (a) The fuel type (number) and usage rate in gal per day;
 - (b) Records of the sulfur content and heating value (Btu/gal) of each oil shipment based upon analysis of a sample representative of the shipment.
 3. Natural Gas
 - (a) The fuel usage rate in cubic feet per day;
 - (b) The average heating value (Btu/ft³) provided by the gas supplier.

All measurements, records, and any other data required to be maintained by Tarmac shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the FDEP and to the DERM upon request. DERM shall be notified in writing at least 15 days prior to the testing (auditing) of any emission measurement instrument required to be operated by these specific conditions in order to allow witnessing by authorized personnel. [Rule 62-4.070(3), F.A.C.]

SUBSECTION D. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT No.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 010, 011, 012, 13 and 022	Finish Mill #1 - #5	Finish Mill # 1- #5 and associated conveyors, separators and coolers.
ARMS No. 008 & 009	Clinker Handling and Storage	Clinker Silos 1,2,4,5,11,12, 18-28 and Slag Dryer
ARMS No. 014, 015 and 016	Cement Storage, Packhouse & Loadout	Cement Silos 1-12, Bulk Loadout Unit #1,#2 and #3 and Packhouse

EMISSION LIMITATIONS

- D.1 The permittee shall not cause or allow to be discharged into the atmosphere visible emissions or particulate emissions that exceed the limits given in Table 1-1. [Rule 62-210.200., F.A.C. (Definitions - Potential Emissions)]
- D.2 In order to minimize excess emissions during startup/shutdown/malfunction these emission units shall adhere to best operational practices. [Rule 62-210.700., F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- D.3 This cement plant and associated equipment is allowed to operate continuously (8760 hours/year) [Rule 62-210.200., F.A.C. (Definitions - Potential Emissions)].

TEST METHODS AND COMPLIANCE PROCEDURES

- D.4 The maximum permitted allowable particulate emission rate (lb/hr and gr/dscf) from these emissions units are as stated in Table 1-1. The permittee may demonstrate compliance by adhering to an opacity limit of 5% in lieu of particulate stack tests. [Rule 62-297.620(4), F.A.C.]

In accordance with Rule 62-297.620(4), minor particulate sources equipped with baghouses with visible emissions that are greater than or equal to 5 percent opacity may require the permittee to perform a stack test in accordance with approved methods to verify compliance with the lb/hr emission limit contained in Table 1-1.
- D.5 Compliance with the allowable emission limiting standards listed in Table 1-1 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800(7), F.A.C.

Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).

Tarmac America, Inc.
Permit Number: 0250020-008-AC

Testing of emissions must be accomplished within 90 to 100% of the permitted capacity [Rule 62-297.310(2), F.A.C.]. Failure to submit the input rates and actual operating conditions may invalidate the test [Rule 62-297.310(2), F.A.C.].

These emission units shall comply with all applicable requirements of Rule 62-297.310 General Test Requirements and 40 CFR 60.8, Subpart A, Performance Tests.

- D.6 The visible emissions test, EPA Method 9, shall be conducted by a certified observer and should be 60 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.310, F.A.C.]
- D.7 Should the DERM have reason to believe the particulate matter standards set forth in Table 1-1 are not being met, the DERM may require that compliance with the particulate emission standards be demonstrated by testing the subject emission unit. [Rule 62-297.620(4) and 62-297.310, F.A.C.]
- D.8 Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

Executed in Miami-Dade County, Florida.

DEPARTMENT OF ENVIRONMENTAL
RESOURCES MANAGEMENT

Mallika Muthiah 10/21/99
Mallika Muthiah, P.E. Date
Air Facilities Section
Air Quality Management Division

MM/mk

attachment

cc: David Buff, P.E., Golder Associates, Inc.
Isadore Goldman, P.E., Florida Department of Environment, West Palm Beach
Bruce Mitchell, Florida Department of Environmental Protection, Tallahassee

FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to § 120.52(7), F.S., with the designated DERM Clerk, receipt of which is hereby acknowledged.

Chloe A. Smith
Clerk

10/21/99
Date

Table 1-1. Minor Particulate Sources

FACILITY ID NUMBER: 0250014

Permittee: Tarmac America, Inc.

Permit No.: 0250020-008-AC
New Dry Process Cement Plant

E.U. ID#	Description	Baghouse ID	Emission Basis	Emission Factor	Future PM/PM10 Emissions		Opacity
					Individual Source Total (tons/year)	Emission Unit Total (tons/year)	
003	Coal Handling/Coal Mill System	3 baghouse	0.01 gr/acf; 31,700 acfm	2.72 lb/hr	11.90	11.90	5%
008	Clinker Handling/Stg. Silos 1,2,4,5,11 and 12	K-147, K-247(a)	0.01 gr/acf; 3,000 acfm	0.26 lb/hr	1.13		20%
009	Clinker Handling/Stg. Silos 1,4,11, 17-23, 26-28.	K-347, K-447, K-521, K-522, K-633(b)	0.01 gr/acf; 9,500 acfm	0.81 lb/hr	3.57	4.69	20%
010	Finish Mill No. 1	F-130, F-113	0.01 gr/acf; 23,800 acfm	2.04 lb/hr	8.94		10%
011	Finish Mill No. 2	F-230, F-213	0.01 gr/acf; 23,800 acfm	2.04 lb/hr	8.94		10%
012	Finish Mill No. 3	F-313, F-330, F-332	0.01 gr/acf; 41,500 acfm	3.56 lb/hr	15.58		10%
013	Finish Mill No. 4	F-430, F-432, F-604, F-605	0.01 gr/acf; 67,000 acfm	5.74 lb/hr	25.15		10%
022	Finish Mill No. 5	5 Baghouses	0.01 gr/acf; 64,320 acfm	5.51 lb/hr	24.15	82.75	10%
014	Cement Silos #1-#12	F-511, F-512, F-513, F-514, F-515	0.01 gr/acf; 43,000 acfm	3.69 lb/hr	16.14		5%-20%
015	Cement Distribution Rail/Truck	B-110, B-210, B-372, B-382	0.01 gr/acf; 15,000 acfm	1.29 lb/hr	5.63		5%-10%
016	Cement Distribution-Packhouse	B-612	0.01 gr/acf; 12,000 acfm	1.03 lb/hr	4.51	26.28	5%-10%
TOTAL					125.6	125.6	

Notes:

- (a) Only one baghouse operates at any one time
- (b) K-347 and K-447 do not operate at the same time.

Table 1-2. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 0250020

Permittee:
Tarmac America, Inc.

Permit No.: 0250020-008-AC
New Dry Process Plant

E.U. ID#	Description	Pollutant ID	Fuel(s) [1]	Allowable Emissions [2]		Equivalent Emissions [3]	Basis
				Permit limits	lb/hr [4]	TPY	
#021	Raw Mill/Preheater/Calciner/Kiln System	PM	coal/gas/oil	0.33 lb/ton clinker	52.8	204.6	40 CFR 63, Subpart LLL
#021	Raw Mill/Preheater/Calciner/Kiln System	PM ₁₀	coal/gas/oil	85 % of PM	44.9	173.91	AP-42
#021	Raw Mill/Preheater/Calciner/Kiln System	SO ₂	coal/gas/oil	2.0 lb/ton clinker (24-hr avg.) 1.3 lb/ton clinker (annual avg.)	320	806	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	NO _x	coal/gas/oil	4.5 lb/ton clinker(24-hr avg.) 3.15 lb/ton clinker (annual avg.)	720	1953	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	CO	coal/gas/oil	3.6 lb/ton clinker(24-hr avg.) 2.35 lb/ton clinker (annual avg.)	576	1457	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	VOC	coal/gas/oil	0.25 lb/ton clinker	40	155	Tarmac
#021	Raw Mill/Preheater/Calciner/Kiln System	H ₂ O _{Amist}	coal/gas/oil	0.014 lb/ton clinker	2.24	8.68	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	THC	coal/gas/oil	50 ppmvd			40 CFR 63, Subpart LLL
#021	Raw Mill/Preheater/Calciner/Kiln System	Dioxin/Furan	coal/gas/oil	0.20 ng TEQ/dscm or 0.40 ng TEQ/dscm			40 CFR 63, Subpart LLL
#021	Raw Mill/Preheater/Calciner/Kiln System	VE	coal/gas/oil	20 % opacity			40 CFR 63, Subpart LLL

Notes

At a maximum design clinker production rate of 160 TPH and a dry feed rate of 277.6 TPH

(1) Fuel combustion as specified in Specific Condition No. C.6 and the protocols established by DERM. See also Specific Condition C.14

(2) Compliance Units. This facility shall demonstrate compliance based on these standards.

(3) "Equivalent Emissions are based on annual emissions at 8,760 hrs/yr.

(4) Short Term (24-hour average)

Table 2-1. Compliance Requirements.

FACILITY ID NUMBER: 0250020

Permit No.: 0250020-008-AC

Permittee:
Tarmac America, Inc.
New Dry Process Plant

ARMS E.U. ID#	Description	Pollutant Name or parameter	Fuel(s) [1]	EPA/Reference Method/CMS *	Testing	Min. Compliance Test	CMS * Compliance
					Time Frequency	Duration	
# 021	Kiln/Cooler/Raw Mill	PM/PM ₁₀	Oil/Coal/Gas/	5 or 201/201A	initial/annual [8]	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	VE	Oil/Coal/Gas/	9/COMS	initial/annual/COMS	3 one-hr run	No [4]
# 021	Kiln/Cooler/Raw Mill	SO ₂	Oil/Coal/Gas/	CEMS	daily average	continuous	Yes [6]
# 021	Kiln/Cooler/Raw Mill	NOx	Oil/Coal/Gas/	CEMS	daily average	continuous	Yes [3]
# 021	Kiln/Cooler/Raw Mill	CO	Oil/Coal/Gas/	10 [5]	initial/annual	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	VOC	Oil/Coal/Gas/	25 or 25A [2]	initial	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	H ₂ SO ₄ mist	Oil/Coal/Gas/	8	initial	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	Hg, Pb, Be	Oil/Coal/Gas/	29	initial	3 one-hr run	
# 021	Fugitive sources	VE		9	Protocol [7]		
# 021	Minor Sources	VE		9	initial/annual	3 one-hr run	

Notes:

- [1] Initial compliance testing shall be conducted under all the scenarios this facility is planning to operate under. Specific condition C.14. Annual testing of emissions shall be conducted during the worst case scenario that this facility would normally operate under. Frequency of testing after initial compliance shall be determined by DERM. Fuels to be burned are specified in Specific Condition C.6.
 - [2] VOC emission shall be tested initially to comply with the condition of this permit. Thereafter, compliance will be assumed provided the CO allowable emission rate is reached.
 - [3] NOx - The continuous emission monitor (CEM) data shall be used for the Kiln for compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.
 - [4] Pursuant to 40 CFR 60, Subpart F, the kiln/cooler exhaust system shall be equipped with continuous opacity monitor system (COMS) to record the opacity at the stack to indicate proper maintenance and operation. Monitoring of the opacity of emissions shall be demonstrated by COMS pursuant to 40 CFR 60.63. Notification and recordkeeping shall be accordance with 40 CFR 60.7 and 40 CCFR 60.65.
 - [5] Continuous process monitors for CO and or O₂ to optimize combustion conditions for pollution control shall be part of the process.
 - [6] SO₂- The continuous emission monitor (CEM) data shall be used for the Kiln compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.
 - [7] Protocol as approved by DERM
 - [8] Tarmac has the option of using Method 5 if they stipulate that all of the PM is PM10.
- *CMS [=] compliance demonstration by a continuous monitoring system: CEMS or COMS.



Appendix A

40 CFR PART 63 Subpart A--General Provisions for Subpart LLL - Portland Cement Plants

§ 63.1 Applicability.

(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 (including those requirements in part 60 of this chapter), or a standard issued under State authority.

(4) The provisions of this subpart (i.e., subpart A of this part) apply to owners or operators who are subject to subsequent subparts of this part, except when otherwise specified in a particular subpart or in a relevant standard. The general provisions in subpart A eliminate the repetition of requirements applicable to all owners or operators affected by this part. The general provisions in 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) Subpart D of this part contains regulations that address procedures for an owner or operator to obtain an extension of compliance with a relevant standard through an early reduction of emissions of hazardous air pollutants pursuant to section 112(i)(5) of the Act.

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

(9) [Reserved]

(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.

(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.



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(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).

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

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

(b) Initial applicability determination for this part.

(1) § 63.1340 specifies applicability.

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

(3) An owner or operator of a stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants who determines that the source is not subject to a relevant standard or other requirement established under this part, shall keep a record of the applicability determination as specified in § 63.10(b)(3) of this subpart.

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

(1) If a relevant standard has been established under this part, the owner or operator of an affected source shall comply with the provisions of this subpart and the provisions of that standard, except as specified otherwise in this subpart or that standard.

(2) 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 the permitting authority in the State in which the source is located. **{Area sources must obtain Title V permits.}** Emission standards promulgated in this part for area sources will specify whether -

(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);

(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

(iii) Area sources affected by that emission standard are immediately subject to the requirement to apply for and obtain a title V permit in all States. If a standard fails to specify what the permitting requirements will be for area sources affected by that standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without deferral. If the owner or operator is required to obtain a title V permit, he or she shall apply for such permit in accordance with part 70 of this chapter and applicable State regulations, or in accordance with the regulations contained in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

(3) [Reserved]

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



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

(d) [Reserved]

(e) *Applicability of permit program before a relevant standard has been set under this part.* After the effective date of an approved permit program in the State in which a stationary source is (or would be) located, the owner or operator of such source may be required to obtain a title V permit from the permitting authority in that State (or revise such a permit if one has already been issued to the source) before a relevant standard is established under this part. If the owner or operator is required to obtain (or revise) a title V permit, he/she shall apply to obtain (or revise) such permit in accordance with the regulations contained in part 70 of this chapter and applicable State regulations, or the regulations codified in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

§ 63.2 Definitions.

Additional definitions in § 63.1341.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to section 112 of the Act. Each relevant standard will define the "affected source" for the purposes of that standard. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Sources regulated under part 60 or part 61 of this chapter are not affected sources for the purposes of part 63.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

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Commenced means, with respect to construction or reconstruction of a stationary source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance plan means a plan that contains all of the following:

(1) A description of the compliance status of the affected source with respect to all applicable requirements established under this part;

(2) A description as follows:

(i) For applicable requirements for which the source is in compliance, a statement that the source will continue to comply with such requirements;

(ii) For applicable requirements that the source is required to comply with by a future date, a statement that the source will meet such requirements on a timely basis;

(iii) For applicable requirements for which the source is not in compliance, a narrative description of how the source will achieve compliance with such requirements on a timely basis;

(3) A compliance schedule, as defined in this section; and

(4) A schedule for the submission of certified progress reports no less frequently than every 6 months for affected sources required to have a schedule of compliance to remedy a violation.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:



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(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part. The effective date of a permit program established under title V of the Act (42 U.S.C. 7661) is determined according to the regulations in this chapter establishing such programs.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard; and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means the maximum achievable control technology emission limitation (MACT emission limitation) for hazardous air pollutants that the Administrator (or a State with an approved permit program) determines on a case-by-case basis, pursuant to section 112(g) or section 112(j) of the Act, to be equivalent to the emission standard that would apply to an affected source if such standard had been promulgated by the Administrator under this part pursuant to section 112(d) or section 112(h) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit issued pursuant to a program approved by the EPA into a SIP as meeting the EPA's minimum criteria for Federal enforceability, including adequate notice and opportunity for EPA and public comment prior to issuance of the final permit and practicable enforceability;

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.



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Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Lesser quantity means a quantity of a hazardous air pollutant that is or may be emitted by a stationary source that the Administrator establishes in order to define a major source under an applicable subpart of this part.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or



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on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation. A relevant standard may include or consist of a

design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 °K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).



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Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere
g = gram
Hz = hertz
J = joule
°K = degree Kelvin
kg = kilogram
l = liter
m = meter
 m^3 = cubic meter
mg = milligram = 10^{-3} gram
ml = milliliter = 10^{-3} liter
mm = millimeter = 10^{-3} meter
Mg = megagram = 10^6 gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10^{-9} gram
nm = nanometer = 10^{-9} meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
μg = microgram = 10^{-6} gram
μl = microliter = 10^{-6} liter

(b) Other units of measure:

Btu = British thermal unit



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°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F = degree Fahrenheit
ft = feet
ft² = square feet
ft³ = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H₂O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd² = square yards
yr = year

(c) Miscellaneous:

act = actual

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avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

§ 63.4 Prohibited activities and circumvention.

(a) *Prohibited activities.*

(1) No owner or operator subject to the provisions of this part shall operate any affected source in violation of the requirements of this part except under-

- (i) An extension of compliance granted by the Administrator under this part; or
- (ii) An extension of compliance granted under this part by a State with an approved permit program; or
- (iii) An exemption from compliance granted by the President under section 112(i)(4) of the Act.

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

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

(4) [Reserved]

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

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

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

- (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
 - (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions;
- and
- (3) The fragmentation of an operation such that the operation avoids regulation by a relevant standard.

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

§ 63.5 Construction and reconstruction.

(a) *Applicability.*

- (1) This section implements the preconstruction review requirements of section



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112(i)(1) for sources subject to a relevant emission standard that has been promulgated in this part. In addition, this section includes other requirements for constructed and reconstructed stationary sources that are or become subject to a relevant promulgated emission standard.

(2) After the effective date of a relevant standard promulgated under this part, the requirements in this section apply to owners or operators who construct a new source or reconstruct a source after the proposal date of that standard. New or reconstructed sources that start up before the standard's effective date are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) Upon construction an affected source is subject to relevant standards for new sources, including compliance dates. Upon reconstruction, an affected source is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new major affected source or reconstruct a major affected source subject to such standard, or reconstruct a major source such that the source becomes a major affected source subject to the standard, without obtaining written approval, in advance, from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that the source becomes an affected source subject to the standard, without notifying the Administrator of the intended construction or reconstruction. The notification shall be submitted in accordance with the procedures in § 63.9(b) and shall include all the information required for an application for approval of construction or reconstruction as specified in paragraph (d) of this section. For major sources, the application for approval of construction or reconstruction may be used to fulfill the notification requirements of this paragraph.

(5) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, no person may operate such source without complying with the provisions of this subpart and the relevant standard unless that person has received an extension of compliance or an exemption from compliance under § 63.6(i) or § 63.6(j) of this subpart.

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard shall be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source. If a new affected source is added to the facility, the new affected source shall be subject to all the provisions of the relevant standard that are established for new sources including compliance dates.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section shall submit to the Administrator an application for approval of the construction of a new major affected source, the reconstruction of a major affected source, or the reconstruction of a major source such

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that the source becomes a major affected source subject to the standard. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The application shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5) of this subpart. The owner or operator may submit the application for approval well in advance of the date construction or reconstruction is planned to commence in order to ensure a timely review by the Administrator and that the planned commencement date will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;
- (E) The expected commencement date of the construction or reconstruction;
- (F) The expected completion date of the construction or reconstruction;
- (G) The anticipated date of (initial) startup of the source;
- (H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each point of emission for each hazardous air pollutant that is emitted (or could be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations. An owner or operator who submits approximations of control efficiencies under this subparagraph shall submit the actual control efficiencies as specified in paragraph (d)(1)(iii) of this section.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section -

- (i) A brief description of the affected source and the components that are to be replaced;

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(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in subparagraphs (d)(3) (iii) through (v) of this section, above.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the re-placements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with -

(i) Notice of the information and findings on which the intended denial is based; and

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(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) The Administrator may approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new or reconstructed source who is subject to such requirement demonstrates to the Administrator's satisfaction that the following conditions have been (or will be) met:

(i) The owner or operator of the new or reconstructed source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located before the promulgation date of the relevant standard and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant emission standard as proposed, if the source is properly built and operated;

(ii) In making its finding, the State has considered factors substantially equivalent to those specified in paragraph (e)(1) of this section; and either

(iii) The promulgated standard is no more stringent than the proposed standard in any relevant aspect that would affect the Administrator's decision to approve or disapprove an application for approval of construction or reconstruction under this section; or

(iv) The promulgated standard is more stringent than the proposed standard but the owner or operator will comply with the standard as proposed during the 3-year period immediately following the effective date of the standard as allowed for in § 63.6(b)(3) of this subpart.

(2) The owner or operator shall submit to the Administrator the request for approval of construction or reconstruction under this paragraph no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2) of this subpart). The owner or operator shall include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph.

§ 63.6 Compliance with standards and maintenance requirements.

(a) *Applicability.*

(1) The requirements in this section apply to owners or operators of affected sources for which any relevant standard has been established pursuant to section 112 of the Act unless -

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) 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

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pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard upon startup of the source.

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

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall comply with the emission standard under section 112(f) not later than the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator shall comply with the standard as provided in paragraphs (b)(1) and (b)(2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or paragraph (b)(4) of this section shall notify the Administrator in accordance with § 63.9(d) of this subpart.

(6) [Reserved]

(7) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected new area source (i.e., an area source for which construction or reconstruction was commenced after the proposal date of the standard) that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard, shall comply with the relevant emission standard immediately upon becoming a major source. This compliance date shall apply to new area sources that become affected major sources regardless of whether the new area source previously was affected by that standard. The new affected major source shall comply with all requirements of that standard that affect new sources.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) After the effective date of a relevant standard established under this part pursuant to section 112(f) of the Act, the owner or operator of an existing source shall comply with such standard not later than 90 days after the standard's effective date unless the Administrator has granted an extension to the source under paragraph (i)(4)(ii) of this section.

(3)-(4) [Reserved]

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

(d) [Reserved]

(e) *Operation and maintenance requirements.*

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

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

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

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

(3) *Startup, shutdown, and malfunction plan.*

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

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

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

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

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



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

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

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

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

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

(A) Does not address a startup, shutdown, or malfunction event that has occurred;
(B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

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

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in

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

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

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

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

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

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

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

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

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in

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

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

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

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

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

(A) Does not address a startup, shutdown, or malfunction event that has occurred;
(B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

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

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in

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

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

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

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

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

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

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

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

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in



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accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) Compliance with opacity and visible emission standards -

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

(2) *Methods for determining compliance.*

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

(ii) [Reserved]

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

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

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

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

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

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission

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observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) Test duration specified in Subpart LLL.

(iii) Test duration specified in Subpart LLL.

(iv) Test duration specified in Subpart LLL.

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

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

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has

notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument

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used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

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

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions*

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

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(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the appropriate authority not later than 12 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are not including emission points in an emissions average, or not later than 18 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are including emission points in an emissions average. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards, e.g., a compliance date specified by the standard is less than 12 (or 18) months after the standard's effective date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 15 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

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(1) The date by which contracts for emission control systems or process changes for emission control will be awarded, or the date by which orders will be issued for the purchase of component parts to accomplish emission control or process changes;

(2) The date by which on-site construction, installation of emission control equipment, or a process change is to be initiated;

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C) A description of interim emission control steps that will be taken during the extension period, including milestones to assure proper operation and maintenance of emission control and process equipment; and

(D) Whether the owner or operator is also requesting an extension of other applicable requirements (e.g., performance testing requirements).

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the



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application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based;
and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based;
and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraphs (i)(10)(iii) or (i)(10)(iv) of this section is not met.

(15) [Reserved]



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(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) Applicability and performance test dates. {§ 63.1349 has specific requirements}

(1) Unless otherwise specified, this section applies to the owner or operator of an affected source required to do performance testing, or another form of compliance demonstration, under a relevant standard.

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source shall perform such tests as follows -

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial startup date before the effective date; or

(ii) Within 180 days after initial startup for a new source that has an initial startup date after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in an applicable subpart of this part for an existing source subject to an emission standard established pursuant to section 112(d) of the Act, or within 180 days after startup of an existing source if the source begins operation after the effective date of the relevant emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance for an existing source that obtains an extension of compliance under § 63.6(i); or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f) [see § 63.6(b)(4)]; or

(vii) [Reserved]; or (viii) [Reserved]; or

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

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

(b) Notification of performance test.

(1) The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to



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begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test. Observation of the performance test by the Administrator is optional.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section, due to unforeseeable circumstances beyond his or her control, the owner or operator shall notify the Administrator within 5 days prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program.*

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

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(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard, the owner or operator shall conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator shall refrain from conducting the performance test until the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see paragraph (f) of this section). If the Administrator does not approve the site-specific test plan (if review is requested) or the use of the alternative method within 30 days before the test is scheduled to begin, the performance test dates specified in paragraph (a) of this section may be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the Administrator approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alter-native.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) *Performance test method audit program.* The owner or operator shall analyze performance audit (PA) samples during each performance test. The owner or operator shall request performance audit materials 45 days prior to the test date. Cylinder audit gases may be obtained by contacting the Cylinder Audit Coordinator, Quality Assurance Division (MD-77B), Atmospheric Research and Exposure Assessment Laboratory (AREAL), U.S. EPA, Research Triangle Park, North Carolina 27711. All other audit materials may be obtained by contacting the Source Test Audit Coordinator, Quality Assurance Division (MD-77B), AREAL, U.S. EPA, Research Triangle Park, North Carolina 27711.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

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

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

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

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

(2) Safe sampling platform(s);

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

(4) Utilities for sampling and testing equipment; and

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

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(e) Conduct of performance tests.

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

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

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

(ii) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) Use of an alternative test method -

(1) *General.* Until permission to use an alternative test method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

(i) Notifies the Administrator of his or her intention to use an alternative test method not later than with the submittal of the site-specific test plan (if requested by the Administrator) or at least 60 days before the performance test is scheduled to begin if a site-specific test plan is not submitted;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this

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section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate when the Administrator approves or disapproves the site-specific test plan required under paragraph (c) of this section. If the Administrator finds reasonable grounds to dispute the results obtained by the Method 301 validation process, the Administrator may require the use of a test method specified in a relevant standard.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) Data analysis, recordkeeping, and reporting.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) Waiver of performance tests.

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and

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continuous monitoring system performance report [such as those required under § 63.6(I), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) Approval of request to waive performance test. The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she -

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) Applicability.

(1) (i) Unless otherwise specified in a relevant standard, this section applies to the owner or operator of an affected source required to do monitoring under that standard.

(ii) Relevant standards established under this part will specify monitoring systems, methods, or procedures, monitoring frequency, and other pertinent requirements for source(s) regulated by those standards. This section specifies general monitoring requirements such as those governing the conduct of monitoring and requests to use alternative monitoring methods. In addition, this section specifies detailed requirements that apply to affected sources required to use continuous monitoring systems (CMS) under a relevant standard.

(2) § 63.1350 includes CEM requirements.

(3) [Reserved]

(4) Flares not applicable.

(b) Conduct of monitoring.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or

(ii) Approves the use of alternatives to any monitoring requirements or procedures.

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the effluents from a single affected source, or from two or more affected sources, are combined before being released to the atmosphere, the owner or operator shall install an applicable CMS on each effluent.

(ii) If the relevant standard is a mass emission standard and the effluent from one affected source is released to the atmosphere through more than one point, the owner or operator shall install an applicable CMS at each emission point unless the installation of fewer systems is -

(A) Approved by the Administrator; or

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(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems. Performance specification supersedes requirements for THC CEM. Temperature and activated carbon injection monitoring data reduction requirements given in subpart LLL.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source shall ensure the immediate repair or replacement of CMS parts to correct "routine" or otherwise predictable CMS malfunctions as defined in the source's startup, shutdown, and malfunction plan required by § 63.6(e)(3). The owner or operator shall keep the necessary parts for routine repairs of the affected equipment readily available. If the plan is followed and the CMS repaired immediately, this action shall be reported in the semiannual startup, shutdown, and malfunction report required under § 63.10(d)(5)(i).

(ii) For those malfunctions or other events that affect the CMS and are not addressed by the startup, shutdown, and malfunction plan, the owner or operator shall report actions that are not consistent with the startup, shutdown, and malfunction plan within 24 hours after commencing actions inconsistent with the plan. The owner or operator shall send a followup report within 2 weeks after commencing actions inconsistent with the plan that either certifies that corrections have been made or includes a corrective action plan and schedule. The owner or operator shall provide proof that repair parts have been ordered or any other records that would indicate that the delay in making repairs is beyond his or her control.

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

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

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

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam.

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Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS installed in accordance with the provisions of this part and the applicable CMS performance specification(s) shall check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (e)(3)(ii) of this section. The zero (low-level) and high-level calibration drifts shall be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system must allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases shall be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces shall be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity.

(7) (i) A CMS is out of control if -

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

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(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) Performance evaluation of continuous monitoring systems - {Performance specification supersedes requirements for THC CEM.

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the

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requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results.*

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) *Use of an alternative monitoring method - {Additional requirements in § 63.1350(I).}*

(1) *General.* Until permission to use an alternative monitoring method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

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(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) Request to use alternative monitoring method. An owner or operator who wishes to use an alternative monitoring method shall submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section, below. The application may be submitted at any time provided that the monitoring method is not used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring method is to be used to demonstrate compliance with a relevant standard, the application shall be submitted not later than with the site-specific test plan required in § 63.7(c) (if requested) or with the site-specific performance evaluation plan (if requested) or at least 60 days before the performance evaluation is scheduled to begin.

(ii) The application shall contain a description of the proposed alternative monitoring system and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application shall include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(5) Approval of request to use alternative monitoring method.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue

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to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) Alternative to the relative accuracy test. An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data.*

(1) The owner or operator of each CMS shall reduce the monitoring data as specified in this paragraph. In addition, each relevant standard may contain additional requirements for reducing monitoring data. When additional requirements are specified in a relevant standard, the standard will identify any unnecessary or duplicated requirements in this paragraph that the owner or operator need not comply with.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each

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representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any data average computed under this part. For owners or operators complying with the requirements of Sec. 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

§ 63.9 Notification requirements.

(a) *Applicability and general information.*

(1) The requirements in this section apply to owners and operators of affected sources that are subject to the provisions of this part, unless specified otherwise in a relevant standard.

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.*

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) 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 shall be subject to the notification requirements of this section.

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

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the

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effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source, including its operating design capacity and an identification of each point of emission for each hazardous air pollutant, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each hazardous air pollutant; and

(v) A statement of whether the affected source is a major source or an area source.

(3) The owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is not required under § 63.5(d), shall notify the Administrator in writing that the source is subject to the relevant standard no later than 120 days after initial startup. The notification shall provide all the information required in paragraphs (b)(2)(i) through (b)(2)(v) of this section, delivered or postmarked with the notification required in paragraph (b)(5).

(4) The owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is required under § 63.5(d) shall provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major affected source, reconstruct a major affected source, or reconstruct a major source such that the source becomes a major affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i);

(ii) A notification of the date when construction or reconstruction was commenced, submitted simultaneously with the application for approval of construction or reconstruction, if construction or reconstruction was commenced before the effective date of the relevant standard;

(iii) A notification of the date when construction or reconstruction was commenced, delivered or postmarked not later than 30 days after such date, if construction or reconstruction was commenced after the effective date of the relevant standard;

(iv) [Reserved]; and

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

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

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot

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comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place. {Notification not required for VE/ opacity tests under 63.1350(e) and (j).

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.*

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who

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shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

- (A) The methods that were used to determine compliance;
- (B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
- (C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;
- (D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard); reported in units and averaging times and in accordance with the test methods specified in the relevant standard;
- (E) An analysis demonstrating whether the affected source is a major source or an area source (using the emissions data generated for this notification);
- (F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and
- (G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification shall be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in a relevant standard, in which case the letter shall be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

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(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) 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. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

§ 63.10 Recordkeeping and reporting requirements.

(a) Applicability and general information.

(1) The requirements of this section apply to owners or operators of affected sources who are subject to the provisions of this part, unless specified otherwise in a relevant standard.

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence

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applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) *General recordkeeping requirements.*

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

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

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

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

(iii) All maintenance performed on the air pollution control equipment;

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

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

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a

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continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) Recordkeeping requirement for applicability determinations. If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under this part, the owner or operator shall keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis shall be performed in accordance with requirements established in subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

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(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods) **PS-8A applies**;

(2)-(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks; **PS-8A applies instead of requirements for THC CEM.**;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7); **PS-8A applies instead of requirements for THC CEM.**;

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source; **PS-8A applies instead of requirements for THC CEM.**;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source; **PS-8A applies instead of requirements for THC CEM.**;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known); **PS-8A applies instead of requirements for THC CEM.**;

(11) The corrective action taken or preventive measures adopted; **PS-8A applies instead of requirements for THC CEM.**;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control; **PS-8A applies instead of requirements for THC CEM.**;

(13) The total process operating time during the reporting period; **PS-8A applies instead of requirements for THC CEM.**; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d); **PS-8A applies instead of requirements for THC CEM.**

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12); **PS-8A applies instead of requirements for THC CEM.**

(d) *General reporting requirements.*

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission



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observations from being conducted concurrently with the performance test required under § 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

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

(5) (i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan [see § 63.6(e)(3)], the owner or operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semi-annually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

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

(e) *Additional reporting requirements for sources with continuous monitoring systems -*

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) Reporting results of continuous monitoring system performance evaluations.

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(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*
{Exceedances are defined in subpart LLL.}

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when -

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved].

(ii) Request to reduce frequency of excess emissions and continuous monitoring system performance reports. Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

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

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing



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compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in § 63.8(c)(7) and § 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report - Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) The date of the latest CMS certification or audit;
- (H) The total operating time of the affected source during the reporting period;
- (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
- (K) A description of any changes in CMS, processes, or controls since the last reporting period;
- (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- (M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

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(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) Reporting continuous opacity monitoring system data produced during a performance test. The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) Waiver of recordkeeping or reporting requirements.

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of record-keeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under § 63.6(i) and § 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device requirements.

Flares not applicable.

§ 63.12 State authority and delegations.

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

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

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

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

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

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

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

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated as follows:

EPA Region IV; Director; Air, Pesticides and Toxics, Management Division; 61 Forsyth Street; Atlanta, GA 30303.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street, SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

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(b) The materials listed below are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

(1) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b)(6).

(2) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b)(6).

(3) ASTM D2879-83, Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of subpart G of this part.

(4) ASTM D 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e)(1) of subpart O of this part.

(5) ASTM D 1193-77, Standard Specification for Reagent Water, IBR approved for Method 306, section 4.1.1 and section 4.4.2, of appendix A to part 63.

(6) ASTM D 1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Method 306B, section 2.2, section 3.1, and section 4.2, of appendix A to part 63.

(7) ASTM E 260-91, Standard Practice for Packed Column Gas Chromatography, IBR approved for § 63.750(b)(2) of subpart GG of this part.

(8) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(9) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish, Lacquer, and Related Products, IBR approved for § 63.788 appendix A.

(10) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788 appendix A.

(11) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(12) ASTM D4017-90, Standard Test Method for Water and Paints and Paint Materials by Karl Fischer Method, IBR approved for § 63.788 appendix A.

(13) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(14) ASTM D4256-89 [reapproved 1994], Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(15) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788 appendix A.

(16) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(17) ASTM E260-91, Standard Practice for Packed Column Gas Chromatography, IBR approved for § 63.786(b).

(18) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(19) ASTM D2879-97, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for Sec. 63.1251 of subpart GGG of this part.

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g)(3)(i)(C) of subpart G of this part.



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(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for Sec. 63.1251 of subpart GGG of this part.

(d) *State and Local Requirements.* The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street, SW., Washington, DC.

(1) California Regulatory Requirements Applicable to the Air Toxics Program, April 6, 1998, IBR approved for § 63.99(a)(5)(ii) of subpart E of this part.

(2) [Reserved]

(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at <http://www.ncasi.org>: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for Sec. 63.457(c)(3)(ii) of subpart S of this part.

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

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GENERAL

§63.1340 Applicability and designation of affected sources.

(a) Except as specified in paragraphs (b) and (c) of this section, the provisions of this subpart apply to each new and existing portland cement plant which is a major source or an area source as defined in §63.2.

(b) The affected sources subject to this subpart are:

(1) Each kiln and each in-line kiln/raw mill at any major or area source, including alkali bypasses, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to and regulated under subpart EEE of this part;

(2) Each clinker cooler at any portland cement plant which is a major source;

(3) Each raw mill at any portland cement plant which is a major source;

(4) Each finish mill at any portland cement plant which is a major source;

(5) Each raw material dryer at any portland cement plant which is a major source and each greenfield raw material dryer at any portland cement plant which is a major or area source;



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- (6) Each raw material, clinker, or finished product storage bin at any portland cement plant which is a major source;
- (7) Each conveying system transfer point at any portland cement plant which is a major source;
- (8) Each bagging system at any portland cement plant which is a major source; and
- (9) Each bulk loading or unloading system at any portland cement plant which is a major source.

(c) For portland cement plants with on-site nonmetallic mineral processing facilities, the first affected source in the sequence of materials handling operations subject to this subpart is the raw material storage, which is just prior to the raw mill. The primary and secondary crushers and any other equipment of the on-site nonmetallic mineral processing plant which precedes the raw material storage are not subject to this subpart. Furthermore, the first conveyor transfer point subject to this subpart is the transfer point associated with the conveyor transferring material from the raw material storage to the raw mill.

(d) The owner or operator of any affected source subject to the provisions of this subpart is subject to title V permitting requirements.

§63.1341 Definitions.

All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A of this part.

Alkali bypass means a duct between the feed end of the kiln and the preheater tower through which a portion of the kiln exit gas stream is withdrawn and quickly cooled by air or water to avoid excessive buildup of alkali, chloride and/or sulfur on the raw feed. This may also be referred to as the "kiln exhaust gas bypass".

Bagging system means the equipment which fills bags with portland cement.

Clinker cooler means equipment into which clinker product leaving the kiln is placed to be cooled by air supplied by a forced draft or natural draft supply system.

Continuous monitor means a device which continuously samples the regulated parameter specified in §63.1350 of this subpart without interruption, evaluates the detector response at least once every 15 seconds, and computes and records the average value at least every 60 seconds, except during allowable periods of calibration and except as defined otherwise by the continuous emission monitoring system performance specifications in appendix B to part 60 of this chapter.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a facility. Conveying systems include but are not limited to the following: feeders, belt conveyors, bucket elevators and pneumatic systems.

Conveying system transfer point means a point where any material including but not limited to feed material, fuel, clinker or product, is transferred to or from a conveying system, or between separate parts of a conveying system.

Dioxins and furans (D/F) means tetra-, penta-, hexa-, hepta-, and octa- chlorinated dibenzo dioxins and furans.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Feed means the prepared and mixed materials, which include but are not limited to materials such as limestone, clay, shale, sand, iron ore, mill scale, cement kiln dust and flyash, that are fed to the kiln. Feed does not include the fuels used in the kiln to produce heat to form the clinker product.

Finish mill means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.

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Greenfield kiln, in-line kiln/raw mill, or raw material dryer means a kiln, in-line kiln/raw mill, or raw material dryer for which construction is commenced at a plant site (where no kilns and no in-line kiln/raw mills were in operation at any time prior to March 24, 1998) after March 24, 1998.

Hazardous waste is defined in §261.3 of this chapter.

In-line kiln/raw mill means a system in a portland cement production process where a dry kiln system is integrated with the raw mill so that all or a portion of the kiln exhaust gases are used to perform the drying operation of the raw mill, with no auxiliary heat source used. In this system the kiln is capable of operating without the raw mill operating, but the raw mill cannot operate without the kiln gases, and consequently, the raw mill does not generate a separate exhaust gas stream.

Kiln means a device, including any associated preheater or precalciner devices, that produces clinker by heating limestone and other materials for subsequent production of portland cement.

Kiln exhaust gas bypass means alkali bypass.

Monovent means an exhaust configuration of a building or emission control device (e. g. positive pressure fabric filter) that extends the length of the structure and has a width very small in relation to its length (i. e., length to width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

New brownfield kiln, in-line kiln raw mill, or raw material dryer means a kiln, in-line kiln/raw mill or raw material dryer for which construction is commenced at a plant site (where kilns and/or in-line kiln/raw mills were in operation prior to March 24, 1998) after March 24, 1998.

One-minute average means the average of thermocouple or other sensor responses calculated at least every 60 seconds from responses obtained at least once during each consecutive 15 second period.

Portland cement plant means any facility manufacturing portland cement.

Raw material dryer means an impact dryer, drum dryer, paddle-equipped rapid dryer, air separator, or other equipment used to reduce the moisture content of feed materials.

Raw mill means a ball and tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

Rolling average means the average of all one-minute averages over the averaging period.

Run average means the average of the one-minute parameter values for a run.

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

EMISSION STANDARDS AND OPERATING LIMITS

§63.1342 Standards: General.

(a) Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to subpart LLL.

(b) Table 1 of this section provides a summary of emission limits and operating limits of this subpart.

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Table 1 to §63.1342. Emission Limits and Operating Limits.

Affected Source	Pollutant or Opacity	Emission and Operating Limit
All kilns and in-line kiln/raw mills at major sources (including alkali bypass)	PM	0.15 kg/Mg of feed (dry basis)
	Opacity	20 percent
All kilns and in-line kiln/raw mills at major and area sources (including alkali bypass)	D/F	<p>0.20 ng TEQ/dscm or 0.40 ng TEQ/dscm when the average of the performance test run average particulate matter control device (PMCD) inlet temperatures is 204° C or less. [Corrected to 7 percent oxygen]</p> <p>Operate such that the three-hour rolling average PMCD inlet temperature is no greater than the temperature established at performance test. If activated carbon injection is used: Operate such that the three-hour rolling average activated carbon injection rate is no less than rate established at performance test. Operate such that either the carrier gas flow rate or carrier gas pressure drop exceeds the value established at performance test. Inject carbon of equivalent specifications to that used at performance test.</p>
New greenfield kilns and in-line kiln/raw mills at major and area sources	THC	50 ppmvd, as propane, corrected to 7 percent oxygen
All clinker coolers at major sources	PM	0.050 kg/Mg of feed (dry basis)
	Opacity	10 percent
All raw mills and finish mills at major sources	Opacity	10 percent
New greenfield raw material dryers at major and area sources	THC	50 ppmvd, as propane, corrected to 7 percent oxygen
All raw material dryers and material handling points at major sources	Opacity	10 percent



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§63.1343 Standards for kilns and in-line kiln/raw mills.

(a) *General.* The provisions in this section apply to each kiln, each in-line kiln/raw mill, and any alkali bypass associated with that kiln or in-line kiln/raw mill.

(b) *Existing, reconstructed, or new brownfield/major sources.* No owner or operator of an existing, reconstructed or new brownfield kiln or an existing, reconstructed or new brownfield in-line kiln/raw mill at a facility that is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources, any gases which:

(1) Contain particulate matter (PM) in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the combined particulate matter emissions from the kiln or in-line kiln/raw mill and the alkali bypass are subject to this emission limit.

(2) Exhibit opacity greater than 20 percent.

(3) Contain D/F in excess of:

(i) 0.20 ng per dscm (8.7×10^{-11} gr per dscf)(TEQ) corrected to seven percent oxygen; or

(ii) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.

(c) *Greenfield/major sources.* No owner or operator that commences construction of a greenfield kiln or greenfield inline kiln/raw mill at a facility which is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources any gases which:

(1) Contain particulate matter in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the combined particulate matter emissions from the kiln or in-line kiln/raw mill and the bypass stack are subject to this emission limit.

(2) Exhibit opacity greater than 20 percent.

(3) Contain D/F in excess of:

(i) 0.20 ng per dscm (8.7×10^{-11} gr per dscf)(TEQ) corrected to seven percent oxygen; or

(ii) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.

(4) Contain total hydrocarbon (THC), from the main exhaust of the kiln or in-line kiln/raw mill, in excess of 50 ppmvd as propane, corrected to seven percent oxygen.

(d) *Existing, reconstructed, or new brownfield/area sources.* No owner or operator of an existing, reconstructed, or new brownfield kiln or an existing, reconstructed or new brownfield in-line kiln/raw mill at a facility that is an area source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources any gases which contain D/F in excess of:

(1) 0.20 ng per dscm (8.7×10^{-11} gr per dscf)(TEQ) corrected to seven percent oxygen; or

(2) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.

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(e) *Greenfield/area sources.* No owner or operator of a greenfield kiln or a greenfield in-line kiln/raw mill at a facility that is an area source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources any gases which:

(1) Contain D/F in excess of:

(i) 0.20 ng per dscm (8.7×10^{-11} gr per dscf)(TEQ) corrected to seven percent oxygen; or

(ii) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.

(2) Contain THC, from the main exhaust of the kiln or in-line kiln/raw mill, in excess of 50 ppmvd as propane, corrected to seven percent oxygen.

§63.1344 Operating Limits for kilns and in-line kiln/raw mills.

(a) The owner or operator of a kiln subject to a D/F emission limitation under §63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph (b) of this section. The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under §63.1343 must operate the in-line kiln/raw mill, such that,

(1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of this section and established during the performance test when the raw mill was operating is not exceeded.

(2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of this section and established during the performance test when the raw mill was not operating, is not exceeded.

(3) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass, specified in paragraph (b) of this section and established during the performance test when the raw mill was operating, is not exceeded.

(b) The temperature limit for affected sources meeting the limits of paragraph (a) of this section or paragraphs (a)(1) through (a)(3) of this section is determined in accordance with §63.1349(b)(3)(iv).

(c) The owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique must operate the carbon injection system in accordance with paragraphs (c)(1) and (c)(2) of this section.

(1) The three-hour rolling average activated carbon injection rate shall be equal to or greater than the activated carbon injection rate determined in accordance with §63.1349(b)(3)(vi).

(2) The owner or operator shall either:

(i) Maintain the minimum activated carbon injection carrier gas flow rate, as a three-hour rolling average, based on the manufacturer's specifications. These specifications must be documented in the test plan developed in accordance with §63.7(c) of this part, or

(ii) Maintain the minimum activated carbon injection carrier gas pressure drop, as a three-hour rolling average, based on the manufacturer's specifications. These specifications must be documented in the test plan developed in accordance with §63.7(c).

(d) Except as provided in paragraph (e) of this section, the owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique must specify and use the brand and type of activated carbon used during the

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performance test until a subsequent performance test is conducted, unless the site-specific performance test plan contains documentation of key parameters that affect adsorption and the owner or operator establishes limits based on those parameters, and the limits on these parameters are maintained.

(e) The owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique may substitute, at any time, a different brand or type of activated carbon provided that the replacement has equivalent or improved properties compared to the activated carbon specified in the site-specific performance test plan and used in the performance test. The owner or operator must maintain documentation that the substitute activated carbon will provide the same or better level of control as the original activated carbon.

§63.1345 Standards for clinker coolers.

(a) No owner or operator of a new or existing clinker cooler at a facility which is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the clinker cooler any gases which:

- (1) Contain particulate matter in excess of 0.050 kg per Mg (0.10 lb per ton) of feed (dry basis) to the kiln.
- (2) Exhibit opacity greater than ten percent.

(b) [Reserved]

§63.1346 Standards for new and reconstructed raw material dryers.

(a) *Brownfield/major sources.* No owner or operator of a new or reconstructed brownfield raw material dryer at a facility which is a major source subject to this subpart shall cause to be discharged into the atmosphere from the new or reconstructed raw material dryer any gases which exhibit opacity greater than ten percent.

(b) *Greenfield/area sources.* No owner or operator of a greenfield raw material dryer at a facility which is an area source subject to this subpart shall cause to be discharged into the atmosphere from the greenfield raw material dryer any gases which contain THC in excess of 50 ppmvd, reported as propane, corrected to seven percent oxygen.

(c) *Greenfield/major sources.* No owner or operator of a greenfield raw material dryer at a facility which is a major source subject to this subpart shall cause to be discharged into the atmosphere from the greenfield raw material dryer any gases which:

- (1) Contain THC in excess of 50 ppmvd, reported as propane, corrected to seven percent oxygen.
- (2) Exhibit opacity greater than ten percent.

§63.1347 Standards for raw and finish mills.

The owner or operator of each new or existing raw mill or finish mill at a facility which is a major source subject to the provisions of this subpart shall not cause to be discharged from the mill sweep or air separator air pollution control devices of these affected sources any gases which exhibit opacity in excess of ten percent.

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§63.1348 Standards for affected sources other than kilns; in-line kiln/raw mills; clinker coolers; new and reconstructed raw material dryers; and raw and finish mills.

The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.

MONITORING AND COMPLIANCE PROVISIONS

§63.1349 Performance Testing Requirements.

(a) The owner or operator of an affected source subject to this subpart shall demonstrate initial compliance with the emission limits of §63.1343 and §§63.1345 through 63.1348 using the test methods and procedures in paragraph (b) of this section and §63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs (a)(1) through (a)(10) of this section, as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested.

- (1) A brief description of the process and the air pollution control system;
- (2) Sampling location description(s);
- (3) A description of sampling and analytical procedures and any modifications to standard procedures;
- (4) Test results;
- (5) Quality assurance procedures and results;
- (6) Records of operating conditions during the test, preparation of standards, and calibration procedures;
- (7) Raw data sheets for field sampling and field and laboratory analyses;
- (8) Documentation of calculations;
- (9) All data recorded and used to establish parameters for compliance monitoring; and
- (10) Any other information required by the test method.

(b) Performance tests to demonstrate initial compliance with this subpart shall be conducted as specified in paragraphs (b)(1) through (b)(4) of this section.

(1) The owner or operator of a kiln subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting a performance test as specified in paragraphs (b)(1)(i) through (b)(1)(iv) of this section. The owner or operator of an in-line kiln/raw mill subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting separate performance tests as specified in paragraphs (b)(1)(i) through (b)(1)(iv) of this section while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating. The owner or operator of a clinker cooler subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting a performance test as specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section. The opacity exhibited during the period of the Method 5 of Appendix A to part 60 of this chapter performance tests required by paragraph (b)(1)(i) of this section shall be determined as required in paragraphs (b)(1)(v) through (vi) of this section.

(i) EPA Method 5 of appendix A to part 60 of this chapter shall be used to determine PM emissions. Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to

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occur. Each run shall be conducted for at least one hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. A determination of the particulate matter collected in the impingers ("back half") of the Method 5 particulate sampling train is not required to demonstrate initial compliance with the PM standards of this subpart. However this shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.

(ii) Suitable methods shall be used to determine the kiln or inline kiln/raw mill feed rate, except for fuels, for each run.

(iii) The emission rate, E, of PM shall be computed for each run using equation 1:

$$E = (c_s Q_{sd}) / P \quad (\text{Eq 1})$$

Where: E = emission rate of particulate matter, kg/Mg of kiln feed.

c_s = concentration of PM, kg/dscm.

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr.

P = total kiln feed (dry basis), Mg/hr.

(iv) When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the main exhaust and alkali bypass of the kiln or in-line kiln/raw mill shall be tested simultaneously and the combined emission rate of particulate matter from the kiln or in-line kiln/raw mill and alkali bypass shall be computed for each run using equation 2,

$$E_c = (c_{sk} Q_{sdk} + c_{sb} Q_{sdb}) / P \quad (\text{Eq 2})$$

Where: E_c = the combined emission rate of particulate matter from the kiln or in-line kiln/raw mill and bypass stack, kg/Mg of kiln feed.

c_{sk} = concentration of particulate matter in the kiln or in-line kiln/raw mill effluent, kg/dscm.

Q_{sdk} = volumetric flow rate of kiln or in-line kiln/raw mill effluent, dscm/hr.

c_{sb} = concentration of particulate matter in the alkali bypass gas, kg/dscm.

Q_{sdb} = volumetric flow rate of alkali bypass gas, dscm/hr.

P = total kiln feed (dry basis), Mg/hr.

(v) Except as provided in paragraph (b)(1)(vi) of this section the opacity exhibited during the period of the Method 5 performance tests required by paragraph (b)(1)(i) of this section shall be determined through the use of a continuous opacity monitor (COM). The maximum six-minute average opacity during the three Method 5 test runs shall be determined during each Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limits of §63.1343(b)(2), §63.1343(c)(2), or §63.1345(a)(2).

(vi) Each owner or operator of a kiln, in-line kiln/raw mill, or clinker cooler subject to the provisions of this subpart using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by paragraph (b)(1)(v) of this section, conduct an opacity test in accordance with Method 9 of appendix A to part 60 of this chapter during each Method 5 performance test required by paragraph (b)(1)(i) of this section. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of Performance Specification 1 (PS-1) of appendix B to part 60 of this chapter is not feasible, a test shall be conducted in accordance with Method 9 of appendix A to part 60 of this chapter during each Method 5 performance test required by paragraph (b)(1)(i) of this section. The maximum six-minute average opacity shall be determined during the

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three Method 5 test runs, and used to demonstrate initial compliance with the applicable opacity limits of §63.1343(b)(2), §63.1343(c)(2), or §63.1345(a)(2).

(2) The owner or operator of any affected source subject to limitations on opacity under this subpart that is not subject to paragraph (b)(1) of this section shall demonstrate initial compliance with the affected source opacity limit by conducting a test in accordance with Method 9 of appendix A to part 60 of this chapter. The performance test shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The maximum six-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be 3-hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1-hour if the conditions of paragraphs (b)(2)(i) through (ii) of the section apply:

(i) There are no individual readings greater than 10 percent opacity;

(ii) There are no more than three readings of 10 percent for the first 1-hour period.

(3) The owner or operator of an affected source subject to limitations on D/F emissions shall demonstrate initial compliance with the D/F emission limit by conducting a performance test using Method 23 of appendix A to part 60 of this chapter. The owner or operator of an in-line kiln/raw mill shall demonstrate initial compliance by conducting separate performance tests while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating. The owner or operator of a kiln or in-line kiln/raw mill equipped with an alkali bypass shall conduct simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass, however the owner or operator of an in-line kiln/raw mill is not required to conduct a performance test of the alkali bypass exhaust when the raw mill of the in-line kiln/raw mill is not operating.

(i) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The duration of each run shall be at least three hours and the sample volume for each run shall be at least 2.5 dscm (90 dscf). The concentration shall be determined for each run and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.

(ii) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and where applicable, the temperature at the inlet to the alkali bypass PMCD, must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.

(iii) One-minute average temperatures must be calculated for each minute of each run of the test.

(iv) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with §63.1344(b).

(v) If activated carbon injection is used for D/F control, the rate of activated carbon injection to the kiln or in-line kiln/raw mill exhaust, and where applicable, the rate of activated carbon injection to the alkali bypass exhaust, must be continuously recorded during the period of the Method 23 test, and the continuous injection rate record(s) must be included in the performance test report. In addition, the performance test report must include the brand and type of activated carbon used during the performance test and a continuous record of either the carrier gas flow rate or the carrier gas pressure drop for the duration of the test. Activated carbon injection rate parameters must be determined in accordance with paragraphs (b)(3)(vi) of this section.



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(vi) The run average injection rate must be calculated for each run, and the average of the run average injection rates must be determined and included in the performance test report and will determine the applicable injection rate limit in accordance with §63.1344(c)(1).

(4) The owner or operator of an affected source subject to limitations on emissions of THC shall demonstrate initial compliance with the THC limit by operating a continuous emission monitor in accordance with Performance Specification 8A of appendix B to part 60 of this chapter. The duration of the performance test shall be three hours, and the average THC concentration (as calculated from the one-minute averages) during the three hour performance test shall be calculated. The owner or operator of an in-line kiln/raw mill shall demonstrate initial compliance by conducting separate performance tests while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating.

(c) Except as provided in paragraph (e) of this section, performance tests required under paragraphs (b)(1) and (b)(2) of this section shall be repeated every five years, except that the owner or operator of a kiln, in-line kiln/raw mill or clinker cooler is not required to repeat the initial performance test of opacity for the kiln, in-line kiln/raw mill or clinker cooler.

(d) Performance tests required under paragraph (b)(3) of this section shall be repeated every 30 months.

(e) The owner or operator is required to repeat the performance tests for kilns or in-line kiln/raw mills as specified in paragraphs (b)(1) and (b)(3) of this section within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test.

(f) Table 1 of this section provides a summary of the performance test requirements of this subpart.

TABLE 1 to §63.1349. SUMMARY OF PERFORMANCE TEST REQUIREMENTS

Affected source and pollutant	Performance Test
New and existing kiln and in-line kiln/raw mill ^{b,c} PM	EPA Method 5 ^a
New and existing kiln and in-line kiln/raw mill ^{b,c} Opacity	COM if feasible ^{d,e} or EPA Method 9 visual opacity readings.
New and existing kiln and in-line kiln/raw mill ^{b,c,f,g,D/F}	EPA Method 23 ^h
New greenfield kiln and in-line kiln/raw mill ^c THC	THC CEM (EPA PS-8A) ⁱ
New and existing clinker cooler PM	EPA Method 5 ^a
New and existing clinker cooler opacity	COM ^{d,j} or EPA Method 9 visual opacity readings
New and existing raw and finish mill opacity	EPA Method 9 ^{a,j}
New and existing raw material dryer and materials handling processes (raw material storage, clinker	EPA Method 9 ^{a,j}

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Affected source and pollutant	Performance Test
storage, finished product storage, conveyor transfer points, bagging, and bulk loading and unloading systems) opacity	
New greenfield raw material dryer THC	THC CEM (EPA PS-8A) ⁱ

- ^a Required initially and every 5 years thereafter.
- ^b Includes main exhaust and alkali bypass.
- ^c In-line kiln/raw mill to be tested with and without raw mill in operation.
- ^d Must meet COM performance specification criteria. If the fabric filter or electrostatic precipitator has multiple stacks, daily EPA Method 9 visual opacity readings may be taken instead of using a COM.
- ^e Opacity limit is 20 percent.
- ^f Alkali bypass is tested with the raw mill on.
- ^g Temperature and (if applicable) activated carbon injection parameters determined separately with and without the raw mill operating.
- ^h Required initially and every 30 months thereafter.
- ⁱ EPA Performance Specification (PS)-8A of appendix B to 40 CFR part 60.
- ^j Opacity limit is 10 percent.

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§63.1350 Monitoring requirements.

(a) The owner or operator of each portland cement plant shall prepare for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan shall be submitted to the Administrator for review and approval as part of the application for a part 70 permit and shall include the following information:

- (1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §§63.1343 through 63.1348;
- (2) Corrective actions to be taken when required by paragraph (e) of this section;
- (3) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year; and
- (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under §§63.1346 and 63.1348. Such procedures must include the provisions of paragraphs (a)(4)(i) through (a)(4)(iv) of this section.

(i) The owner or operator must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to part 60 of this chapter. The test must be conducted while the affected source is in operation.

(ii) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(iii) If no visible emissions are observed during the semi-annual test for any affected source, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(iv) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions.

(b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph (a) of this section shall be a violation of the standard.

(c) The owner or operator of a kiln or in-line kiln/raw mill shall monitor opacity at each point where emissions are vented from these affected sources including alkali bypasses in accordance with paragraphs (c)(1) through (c)(3) of this section.

(1) Except as provided in paragraph (c)(2) of this section, the owner or operator shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to part 60 of this chapter.

(2) The owner or operator of a kiln or in-line kiln/raw mill subject to the provisions of this subpart using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by paragraph (c)(1) of this section, monitor opacity in accordance with paragraphs (c)(2)(i) through (ii) of this section. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of appendix B to part 60 of this chapter is not feasible, the owner or operator must monitor opacity in accordance with paragraphs (c)(2)(i) through (ii) of this section.



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(i) Perform daily visual opacity observations of each stack in accordance with the procedures of Method 9 of appendix A of part 60 of this chapter. The Method 9 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 9 test shall be at least 30 minutes each day.

(ii) Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test.

(3) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 20 percent. If the average opacity for any 6-minute block period exceeds 20 percent, this shall constitute a violation of the standard.

(d) The owner or operator of a clinker cooler shall monitor opacity at each point where emissions are vented from the clinker cooler in accordance with paragraphs (d)(1) through (d)(3) of this section.

(1) Except as provided in paragraph (d)(2) of this section, the owner or operator shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the clinker cooler PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to part 60 of this chapter.

(2) The owner or operator of a clinker cooler subject to the provisions of this subpart using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by paragraph (d)(1) of this section, monitor opacity in accordance with paragraphs (d)(2)(i) through (ii) of this section. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of appendix B to part 60 of this chapter is not feasible, the owner or operator must monitor opacity in accordance with paragraphs (d)(2)(i) through (ii) of this section.

(i) Perform daily visual opacity observations of each stack in accordance with the procedures of Method 9 of appendix A of part 60 of this chapter. The Method 9 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 9 test shall be at least 30 minutes each day.

(ii) Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test.

(3) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10 percent. If the average opacity for any 6-minute block period exceeds 10 percent, this shall constitute a violation of the standard.

(e) The owner or operator of a raw mill or finish mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs of these affected sources, in accordance with the procedures of Method 22 of appendix A of part 60 of this chapter. The Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator must:

(1) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with paragraphs (a)(1) and (a)(2) of this section; and

(2) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a visual opacity test of each stack from which visible emissions were observed in accordance with Method 9 of appendix A of part 60 of this chapter. The duration of the Method 9 test shall be thirty minutes.



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(f) The owner or operator of an affected source subject to a limitation on D/F emissions shall monitor D/F emissions in accordance with paragraphs (f)(1) through (f)(6) of this section.

(1) The owner or operator shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln, in-line kiln/raw mill and/or alkali bypass PM control devices.

(i) The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in §63.1349(b)(3)(iv).

(ii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

(2) The owner or operator shall monitor and continuously record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the kiln, in-line kiln/raw mill and/or alkali bypass PMCD.

(3) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

(4) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

(5) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.

(6) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

(g) The owner or operator of an affected source subject to a limitation on D/F emissions that employs carbon injection as an emission control technique shall comply with the monitoring requirements of paragraphs (f)(1) through (f)(6) and (g)(1) through (g)(6) of this section to demonstrate continuous compliance with the D/F emission standard.

(1) Install, operate, calibrate and maintain a continuous monitor to record the rate of activated carbon injection. The accuracy of the rate measurement device must be ± 1 percent of the rate being measured.

(2) Verify the calibration of the device at least once every three months.

(3) The three-hour rolling average activated carbon injection rate shall be calculated as the average of 180 successive one-minute average activated carbon injection rates.

(4) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

(5) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average activated carbon injection rate must begin anew, without considering previous recordings.

(6) The owner or operator must install, operate, calibrate and maintain a continuous monitor to record

the activated carbon injection system carrier gas parameter (either the carrier gas flow rate or the carrier gas pressure drop) established during the D/F performance test in accordance with paragraphs (g)(6)(i) through (g)(6)(iii) of this section.

(i) The owner or operator shall install, calibrate, operate and maintain a device to continuously monitor and record the parameter value.

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(ii) The owner or operator must calculate and record three-hour rolling averages of the parameter value.

(iii) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average shall be added to the previous 179 values to calculate the three-hour rolling average.

(h) The owner or operator of an affected source subject to a limitation on THC emissions under this subpart shall comply with the monitoring requirements of paragraphs (h)(1) through (h)(3) of this section to demonstrate continuous compliance with the THC emission standard:

(1) The owner or operator shall install, operate and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8A, of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part.

(2) The owner or operator is not required to calculate hourly rolling averages in accordance with section 4.9 of Performance Specification 8A.

(3) Any thirty-day block average THC concentration in any gas discharged from a greenfield raw material dryer, the main exhaust of a greenfield kiln, or the main exhaust of a greenfield in-line kiln/raw mill, exceeding 50 ppmvd, reported as propane, corrected to seven percent oxygen, is a violation of the standard.

(i) The owner or operator of any kiln or in-line kiln/raw mill subject to a D/F emission limit under this subpart shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln raw mill at least once per year.

(j) The owner or operator of an affected source subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with paragraph (a) of this section.

(k) The owner or operator of an affected source subject to a particulate matter standard under §63.1343 shall install, calibrate, maintain and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere. The compliance deadline for installing the PM CEMS and all requirements relating to performance of the PM CEMS and implementation of the PM CEMS requirement is deferred pending further rulemaking.

(l) An owner or operator may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart, except for emission standards for THC, subject to the provisions of paragraphs (l)(1) through (l)(6) of this section.

(1) The Administrator will not approve averaging periods other than those specified in this section, unless the owner or operator documents, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any increment of time equivalent to the time required to conduct three runs of the performance test.

(2) If the application to use an alternate monitoring requirement is approved, the owner or operator must continue to use the original monitoring requirement until approval is received to use another monitoring requirement.

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(3) The owner or operator shall submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in paragraphs (1)(3)(i) through (1)(3)(iii) of this section:

(i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;

(ii) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and

(iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.

(4) The Administrator will notify the owner or operator of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide:

(i) Notice of the information and findings upon which the intended disapproval is based; and

(ii) Notice of opportunity for the owner or operator to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the owner or operator to provide additional supporting information.

(5) The owner or operator is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provision of this subpart.

(6) The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.

(m) A summary of the monitoring requirements of this subpart is given in Table 1 to this section.

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Table 1 to §63.1350. Monitoring Requirements.

Affected Source/Pollutant or Opacity	Monitor Type/ Operation/Process	Monitoring Requirements
All affected sources	Operations and maintenance plan	Prepare written plan for all affected sources and control devices
All kilns and in-line kiln raw mills at major sources (including alkali bypass)/opacity	Continuous opacity monitor, if applicable	Install, calibrate, maintain and operate in accordance with general provisions and with PS-1
	Method 9 opacity test, if applicable	Daily test of at least 30-minutes, while kiln is at highest load capacity level
Kilns and in-line kiln raw mills at major sources (including alkali bypass)/particulate matter	Particulate matter continuous emission monitoring system	Deferred
Kilns and in-line kiln raw mills at major and area sources (including alkali bypass)/ D/F	Combustion system inspection	Conduct annual inspection of components of combustion system
	Continuous temperature monitoring at PMCD inlet	Install, operate, calibrate and maintain continuous temperature monitoring and recording system; calculate three-hour rolling averages; verify temperature sensor calibration at least quarterly
Kilns and in-line kiln raw mills at major and area sources (including alkali bypass)/ D/F (continued)	Activated carbon injection rate monitor, if applicable	Install, operate, calibrate and maintain continuous activated carbon injection rate monitor; calculate three-hour rolling averages; verify calibration at least quarterly; install, operate, calibrate and maintain carrier gas flow rate monitor or carrier gas pressure drop monitor; calculate three-hour rolling average; document carbon specifications
New greenfield kilns and in-line kiln raw mills at major and area sources/THC	Total hydrocarbon continuous emission monitor	Install, operate, and maintain THC CEM in accordance with P 8A; calculate 30-day block average THC concentration
Clinker coolers at major sources/opacity	Continuous opacity monitor, if applicable	Install, calibrate, maintain and operate in accordance with general provisions and with PS-1
	Method 9 opacity test, if applicable	Daily test of at least 30-minutes, while kiln is at highest load capacity level.
Raw mills and finish mills at major sources/opacity	Method 22 visible emissions test	Conduct daily 6-minute Method 22 visible emissions test when mill is operating at highest load or capacity level; if visible emissions are observed, initiate corrective action within one hour and conduct 30-minute Method 9 test within 24 hours
New greenfield raw material dryers at major and area sources/THC	Total hydrocarbon continuous emission monitor	Install, operate, and maintain THC CEM in accordance with P 8A; calculate 30-day block average THC concentration
Raw material dryers; raw material, clinker, finished product storage bins; conveying system transfer points; bagging systems; and bulk loading and unloading systems at major sources/opacity	Method 22 visible emissions test	As specified in operation and maintenance plan



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§63.1351 Compliance dates.

(a) The compliance date for an owner or operator of an existing affected source subject to the provisions of this subpart is June 10, 2002.

(b) The compliance date for an owner or operator of an affected source subject to the provisions of this subpart that commences new construction or reconstruction after March 24, 1998 is June 9, 1999 or immediately upon startup of operations, whichever is later.

63.1352 Additional Test Methods.

(a) Owners or operators conducting tests to determine the rates of emission of hydrogen chloride (HCl) from kilns, in-line kiln/raw mills and associated bypass stacks at portland cement manufacturing facilities, for use in applicability determinations under §63.1340 are permitted to use Method 320 or Method 321 of appendix A of this part.

(b) Owners or operators conducting tests to determine the rates of emission of hydrogen chloride (HCl) from kilns, in-line kiln/raw mills and associated bypass stacks at portland cement manufacturing facilities, for use in applicability determinations under §63.1340 are permitted to use Methods 26 or 26A of appendix A to part 60 of this chapter, except that the results of these tests shall not be used to establish status as an area source.

(c) Owners or operators conducting tests to determine the rates of emission of specific organic HAP from raw material dryers, kilns and in-line kiln/raw mills at portland cement manufacturing facilities, for use in applicability determinations under §63.1340 of this subpart are permitted to use Method 320 of appendix A to this part, or Method 18 of appendix A to part 60 of this chapter.

NOTIFICATION, REPORTING AND RECORDKEEPING

§63.1353 Notification requirements.

(a) The notification provisions of 40 CFR part 63, subpart A that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(b) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as follows:

(1) Initial notifications as required by §63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification.

(2) Notification of performance tests, as required by §§63.7 and 63.9(e).

(3) Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f).



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- (4) Notification, as required by §63.9(g), of the date that the continuous emission monitor performance evaluation required by §63.8(e) of this part is scheduled to begin.
- (5) Notification of compliance status, as required by §63.9(h).

§63.1354 Reporting requirements.

(a) The reporting provisions of subpart A of this part that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(b) The owner or operator of an affected source shall comply with the reporting requirements specified in §63.10 of the general provisions of this part 63, subpart A as follows:

(1) As required by §63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.

(2) As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349.

(3) As required by §63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports by the dates specified in the written extension of compliance.

(4) As required by §63.10(d)(5), if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in §63.6(e)(3), the owner or operator shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and

(5) Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

(6) As required by §63.10(e)(2), the owner or operator shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by §63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test.

(7) As required by §63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under §63.8(e).

(8) As required by §63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.

(9) The owner or operator shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include:



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(i) All exceedences of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b);

(ii) All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(f)(7) of this subpart; and

(iii) All failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under §63.1344(c).

(iv) The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i).

(v) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a).

(10) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report.

§63.1355 Recordkeeping requirements.

(a) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

(b) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3) of this part; and

(1) All documentation supporting initial notifications and notifications of compliance status under §63.9 of this part;

(2) All records of applicability determination, including supporting analyses; and

(3) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

(c) In addition to the recordkeeping requirements in paragraph (b) of this section, the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c).

OTHER

§63.1356 Exemption from new source performance standards.

(a) Except as provided in paragraphs (a)(1) and (a)(2) of this section, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart F.

(1) Kilns and in-line kiln/raw mills, as applicable under 40 CFR 60.60(b), located at area sources are subject to PM and opacity limits and associated reporting and recordkeeping, under 40 CFR part 60, subpart F.

Appendix B
**Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the
Portland Cement Manufacturing Industry.**

(2) Greenfield raw material dryers, as applicable under 40 CFR 60.60(b), located at area sources are subject to opacity limits and associated reporting and recordkeeping under 40 CFR part 60, subpart F.

§63.1357 Temporary, conditioned exemption from particulate matter and opacity standards.

(a) Subject to the limitations of paragraphs (b) through (f) of this section, an owner or operator conducting PM CEMS correlation tests (that is, correlation with manual stack methods) is exempt from:

(1) Any particulate matter and opacity standards of part 60 or part 63 of this chapter that are applicable to cement kilns and in-line kiln/raw mills.

(2) Any permit or other emissions or operating parameter or other limitation on workplace practices that are applicable to cement kilns and in-line kiln raw mills to ensure compliance with any particulate matter and opacity standards of this part or part 60 of this chapter.

(b) The owner or operator must develop a PM CEMS correlation test plan. The plan must be submitted to the Administrator for approval at least 90 days before the correlation test is scheduled to be conducted. The plan must include:

(1) The number of test conditions and the number of runs for each test condition;

(2) The target particulate matter emission level for each test condition;

(3) How the operation of the affected source will be modified to attain the desired particulate matter emission rate; and

(4) The anticipated normal particulate matter emission level.

(c) The Administrator will review and approve or disapprove the correlation test plan in accordance with §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified in §63.7(c)(3)(iii), the plan shall be considered approved, unless the Administrator has requested additional information.

(d) The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after operations are modified to attain the desired particulate matter emissions concentrations, unless the correlation test plan documents that a longer period is appropriate.

(e) The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs and conditions.

(f) The owner or operator must return the affected source to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed.

§63.1358 Delegation of Authority.

(a) In delegating implementation and enforcement authority to a State under subpart E of this part, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States:

(1) Approval of alternative non-opacity emission standards under §63.6(g).



Appendix B
**Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the
Portland Cement Manufacturing Industry.**

- (2) Approval of alternative opacity standards under §63.6(h)(9).
- (3) Approval of major changes to test methods under §§63.7(e)(2)(ii) and 63.7(f). A major change to a test method is a modification to a federally enforceable test method that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).
- (4) Approval of major changes to monitoring under §63.8(f). A major change to monitoring is a modification to federally enforceable monitoring that uses unproven technology or procedures, is an entirely new method (sometimes necessary when the required monitoring is unsuitable), or is a change in the averaging period.
- (5) Waiver of recordkeeping under §63.10(f).

§63.1359 [Reserved]

MIAMI-DADE COUNTY, FLORIDA



ENVIRONMENTAL RESOURCES MANAGEMENT
AIR QUALITY MANAGEMENT DIVISION
33 S.W. 2nd AVENUE
SUITE 900
MIAMI, FLORIDA 33130-1540
TELEPHONE: (305) 372-6925
FAX: (305) 372-6954

October 21, 1999

CERTIFIED MAIL P 343 639 730
RETURN RECEIPT REQUESTED

PERMITTEE:

Tarmac America, Inc.
455 Fairway Drive
Deerfield Beach, Fl 33441

Permit No. 0250020-008-AC
Issue Date October 21, 1999
Expiration Date: October 20, 2002

Authorized Representative:
Scott Quaas
Environmental Manager

PROJECT AND LOCATION:

Project: The construction of a dry process portland cement plant with preheater/calcliner/kiln, cooler, coal mill and raw mill to replace existing kilns and coolers system. A new finish mill will be constructed in addition to the existing mills.

Facility Description: Portland Cement Plant (SIC # 3241)

Location: 11000 N.W. 121 Way, Miami-Dade County, Florida 33178

Lat./Long.: 25° 52' 30" N / 80° 22' 30" W

UTM: Zone 17; 562.8 Km. E; 2861.7 Km. N

Dear Mr. Quaas:

This is Permit Number 0250020-008-AC to construct an air pollution source issued by the **Miami-Dade County Department of Environmental Resources Management (DERM)** pursuant to **Chapter 24, Code of Miami-Dade County and Chapter 403.087, Florida Statutes (F.S.)**. This is a new construction permit to authorize construction of the emissions units described in this permit.

The Florida Department of Environmental Protection (FDEP) has permitting jurisdiction under Section 403.087, Florida Statutes (F.S.). However, in accordance with Section 403.182, F.S., the FDEP recognizes the DERM as the approved local air pollution control program of Miami-Dade County. Through a Specific Operating Agreement, the FDEP delegated to the DERM the authority to issue or deny permits for this type of air pollution source located in Miami-Dade County.

NOTICE OF RIGHTS:

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to **Section 120.68, F.S.**, by the filing of a Notice of Appeal pursuant to **Rule 9.110, Florida Rules of Appellate Procedure**, with the Clerk of the Miami-Dade County Department of Environmental Resources Management, Air Facilities Section, at 33 SW 2nd Avenue, Suite 900, Miami, Florida 33130-1540 and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the Clerk of the DERM.

STATEMENT OF BASIS:

This permit is issued under the provisions of **Chapter 24, Code of Miami-Dade County, Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, and 62-204 through 62-297**, and in conformance with all existing regulations of the FDEP and the DERM rules. The above named owner or operator is hereby authorized to perform the work or construct the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the DERM and made a part hereof and specifically described in this permit.

Attached appendices and Tables made a part of this permit:

Table 1-1	Allowable Opacity Limits
Table 1-2	Air Pollutants Standards and Terms
Table 2-1	Compliance Requirements
Appendix A	General Conditions
Appendix B	National Emission Standards for Hazardous Air Pollutants for the Portland Cement Plant

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

The currently permitted Tarmac facility consists of: cement distribution rail truck loadouts and packhouse with two baggers, coal handling system, twelve cement storage silos serving mills 1 through 4, slag dryer, insuflation system, cement plant, ready mix plant, three kilns, three coolers, four finish mills with airslides, conveyors and dust collectors, clinker handling and storage system. This permit is for the construction of a dry process portland cement plant with preheater/calcliner/kiln, cooler, coal mill and raw mill to replace existing kilns and coolers system, capable of producing upto 160 tons per hour, and approximately 1,240,000 tons per year (TPY) of clinker. A new finish mill will be constructed in addition to the existing mills.

EMISSION UNITS

This permit addresses the following emission units:

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 003	Coal Handling	Coal Mill, Pet Coke Feed Bin, Coal Feed Bin Coal Handling and Storage (Fugitive)
ARMS No. 021	Raw Mill/Pyroprocessing Unit	Pyroprocessing consist of the Preheater/Calciner, Kiln, Cooler and Raw Mill
ARMS No. 010, 011,012, 13 and 022	Finish Mill #1 - #5	Finish Mill # 1- #5 and associated conveyors, separators and coolers.
ARMS No. 008 & 009	Clinker Handling and Storage	Clinker Silos 1,2,4,5,11,12, 18-28 and Slag Dryer
ARMS No. 014, 015 and 016	Cement Storage, Packhouse & Loadout	Cement Silos 1-12, Bulk Loadout Unit #1,#2 and #3 and Packhouse

SUBSECTION B. REGULATORY CLASSIFICATION

The Tarmac America Pensuco Cement Plant directly emits more than 100 tons per year (TPY) of several regulated air pollutants and emits over 10 TPY of at least one hazardous air pollutant. Therefore it is classified as a "Major Source of Air Pollution or Title V Source," per the definitions in **Rule 62-204.200, F.A.C.**

This industry is listed in Table 62-212.400-1 of Chapter 62-212, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 TPY of carbon monoxide, volatile organic compounds, sulfur dioxide, nitrogen oxides, or particulate matter characterize the installation as a major facility per the definitions in **Rule 62-210.200, F.A.C.**



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Permit Number: 0250020-008-AC

The facility is also subject to 40 CFR Subpart F, New Source Performance Standards (NSPS) for Portland Cement Plants, incorporated by reference in **Rule 62-204.800, F.A.C.** and 40 CFR 63, Subpart LLL, Portland Cement Manufacturing Plant

SIGNIFICANT DATES:

Public Notice of Intent Published: April 14, 1999
Additional Information Received: December 1, 1998
Application Received: June 30, 1998

SECTION II. FACILITY-WIDE CONDITIONS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Air Division of the Dade County Department of Environmental Resources Management (DERM), Suite 900, 33 Southwest Second Avenue, Miami, Florida 33130-1540.
- A.2 Specific and General Conditions: The owner or operator shall be subject to the specific and general conditions of this permit and the owner or operator shall be aware of, and operate under, the attached General Conditions, attached as Appendix A of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [F.A.C. Rule 62-4.160]
- A.3 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.4 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- A.5 Expiration: This air construction permit shall expire on October 20, 2002 [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Miami-Dade County Department of Environmental Resources Management, Air Facilities Section, prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the DERM of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
- A.6 Other Permits: This air pollution permit does not preclude the owner or operator from obtaining any other types of required permits, licenses or certifications from the DERM or other departments or agencies.
- A.7 Title V Permit is Required: This permit authorizes construction and/or installation of the permitted emission units and initial operation to determine compliance with the FDEP and the DERM rules. An application for a Title V operation permit must be submitted to the Miami-Dade County Department of Environmental Resources Management, Air Facilities Section, 90 days before the expiration date of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, and such additional information as the DERM may by law require. [F.A.C. Rule 62-4.030, 62-4.050, and 62-213.420(1)(a)2.]
- A.8 Applicable Regulations: Unless otherwise indicated, the construction of a dry process Portland Cement Plant and associated equipment shall be in accordance with the capacities and specifications stated in the application. This facility is subject to all applicable provisions of Chapter 403, F.S and Florida Administrative Code Chapters 62-4; 62-103; 62-204, 62-210,



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62-212, 62-213, 62-296, 62-297; and the Code of Federal Regulations Section 40, Part 60. Specifically, this facility is subject to the New Source Performance Standards (NSPS) for Portland Cement Manufacturing Plant identified by the Code of Federal Regulations Section 40 Part 60, Subpart F and National Emission Standards for Hazardous Air Pollutants for Portland Cement Plant, 40 CFR 63, Subpart LLL Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

A.9 Chapter 24-Code of Metropolitan Dade County. This facility is subject to all applicable requirements of this Chapter.

SUBSECTION B. EMISSION LIMITING STANDARDS

B.1 General Visible Emissions Standard: [Rule 62-296.320 (4)(b)1 & 4, F.A.C.] Unless otherwise specified by rule or permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere any air pollutants from new or existing emissions units, the opacity of which is equal to:

- Visible emissions from PM sources shall not exceed 20% opacity.

B2 Unconfined Emissions of Particulate Matter [Rule 62-296.320(4)(c)2, F.A.C.]

- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions may include the following:
 1. Paving and maintenance of roads, parking areas and yards.
 2. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 3. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 4. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 5. Landscaping or planting of vegetation.
 6. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 7. Confining abrasive blasting where possible.
 8. Enclosure or covering of conveyor systems.

In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the

technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

NOTE: Facilities that cause frequent, valid complaints may be required by the DERM, Air Facilities Section to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

B.3 General Pollutant Emission Limiting Standards:

- (a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emissions control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320 (1)(a), F.A.C.]
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320 (2), F.A.C.]

SUBSECTION C. OPERATION AND MAINTENANCE

- C.1 Changes/Modifications: The owner or operator shall submit to the DERM, Air Facilities Section, for review and obtain approval for any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain an air construction permit prior to making the desired change. [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]
- C.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the owner or operator shall notify the DERM, Air Facilities Section as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]
- C.3 Circumvention: The owner or operator shall not circumvent any air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]

C.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]

- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the DERM, Air Facilities Section for longer duration. [Rule 62-210.700(1), F.A.C.]
- (b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Air Facilities Section of the DERM within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]

SUBSECTION D. MONITORING OF OPERATIONS

D.1 Determination of Process Variables:

- (a) The permittee shall install, operate, and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310 (5), F.A.C.]
- (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

SUBSECTION E. TEST REQUIREMENTS

- E.1 Test Performance** Within 60 days after achieving the maximum production rate at which this facility will be operated, but not later than 180 days after initial startup up and annually thereafter, (except for VOC), the owner or operator shall simultaneously conduct performance test(s) for PM/PM₁₀, NO_x, SO₂, CO, VE and VOC (initial) pursuant to 40 CFR 60.8, Performance Tests, Rule 62-296.310 F.A.C., 40 CFR 60, Appendix A and 40 CFR 51, Appendix M. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2).F.A.C. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]

- E.2 Test Procedures and Test Reports shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310 (4), F.A.C.]
- E.3 Test Notification: The owner or operator shall notify the DERM, Air Facilities Section in writing at least (30) days (initial) and (15) days (annual) prior to conducting each scheduled compliance test. The notification shall include the test date, the expected test time, the facility contact person for the test, and the person or company conducting the test. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- E.4 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204 through 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the DERM., Air Facilities Section. [Rule 62-297.310(7)(b), F.A.C.]
- E.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C.
- E.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.

SUBSECTION F. REPORTS AND RECORDS

- F.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [62-4.160(14)(b), F.A.C.]
- F.2 Emission Compliance Stack Test Reports
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the DERM, Air Facilities Section as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310, F.A.C.]
- (b) The *test report* shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310 (8), F.A.C.
- F.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Air Facilities Section of the DERM, within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7. [Rules 62-4.130 and 62-210.700(6), F.A.C.]

Tarmac America, Inc.
Permit Number: 0250020-008-AC

- F.4 Annual Operating Report for Air Pollutant Emitting Facility. Before March 1st of each year, the owner or operator shall submit to the Department this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]
- F.5 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance (O&M) log to include, at a minimum, the following information:
- (1) Calibration logs for all emission measuring instruments.
 - (2) Maintenance/repair logs for any work performed on equipment or emission measuring instrument which is subject to this permit.
 - (3) All measurements, records, and any other data required to be maintained by Tarmac shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the DERM or the FDEP staff upon request.

SUBSECTION G. OTHER REQUIREMENTS

- G.1 Used Oil and Grease: Used oil and grease burned at this facility shall not be a hazardous waste as defined by 40 CFR Part 261.3 or Rule 62-730.030, F.A.C. It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. These fuels shall be burned in compliance with Section 403.769(3), Florida Statutes.
- G.2 Other Regulations: The owner or operator shall comply with applicable provisions of Rule 62-710, Used oil Management and 40 CFR Parts 279, Standards for the Management of Used Oil.
- G.3 No Hazardous wastes or hazardous materials shall be stored, collected, handled or burned in the new pyroprocessing system.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. COMMON CONDITIONS: 40 CFR 60 NEW SOURCE PERFORMANCE STANDARDS

EMISSION UNITS

This section addresses the following emission units.

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 003	Coal Handling	Coal Mill, Pet Coke Feed Bin, Coal Feed Bin
ARMS No. 021	Raw Mill/Pyroprocessing Unit	Pyroprocessing consist of the Preheater/Calciner, Kiln, Cooler and Raw Mill
ARMS No. 010, 011,012, 013 and 022	Finish Mill #1 - #5	Finish Mill # 1- #5 and associated conveyors, separators and coolers.
ARMS No. 008 & 009	Clinker Handling and Storage	Clinker Silos 1,2,4,5,11,12, 18-28 and Slag Dryer
ARMS No. 014, 015 and 016	Cement Storage, Packhouse & Loadout	Cement Silos 1-12, Bulk Loadout Unit #1,#2 and #3 and Packhouse

These emission units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A, adopted by reference in Rule 62-204.800(7), F.A.C.

- A.1 [40 CFR 60.7, Notification and record keeping]
- A.2 [40 CFR 60.8, Performance tests]
- A.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- A.4 [40 CFR 60.12, Circumvention]
- A.5 [40 CFR 60.13, Monitoring requirements]
- A.6 [40 CFR 60.19, General notification and reporting requirements]

This cement plant shall comply with all applicable provisions of the 40 CFR 60 Subpart F, Standards of Performance for Portland Cement Plants, 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants and 40 CFR 63, Subpart LLL, Portland Cement Manufacturing Plant.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
ARMS No. 003	Coal Handling	Coal Mill, Pet Coke Feed Bin, Coal Feed Bin Coal Handling System and Storage

The existing rail delivery system for coal, consisting of a rail dump operation, temporary and active coal storage piles, and coal hopper, will be used for the new plant. Petroleum coke will be utilized as fuel, and will be handled in the same manner as coal. The proposed coal mill system will consist of a Fuller coal mill, which will grind up to 23 TPH of coal, a conveyor, two feed bins, and two storage bins, one for the kiln fuel and one for the calciner fuel. The raw lump coal/petcoke is fed to the coal mill where the coal/petcoke is ground and dried by hot preheater gas. The exhaust gases from the mill exit to a baghouse dust collector. The entrained coal/petcoke dust is removed in the dust collector and the cleaned gas is vented to the atmosphere via the plant common stack. The coal/petcoke is then transferred to storage bins. From the storage bins, the fuel is pneumatically conveyed to the kiln and calciner burners.

This emission unit shall comply with all applicable provisions of the 40 CFR 60 Subpart Y New Source Performance Standards for Portland Cement Plants, Subpart F. [Rule 62-204.800(7)(b)8., F.A.C.]

EMISSION LIMITATIONS

- B.1 The maximum allowable emission rates for the coal handling system shall not exceed the limits listed in Table 1-1, Air Pollutant Standards and Terms (attached). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.2 In order to minimize excess emissions during startup/shutdown/malfunction this emission units shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- B.3 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.4 The coal handling maximum production rate reflects coal/petroleum coke throughput and shall not exceed 176,080 TPY. [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- B.5 The coal handling maximum hourly rate reflects coal/petroleum coke shall not exceed 23 TPH average rate. [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

TEST METHODS AND COMPLIANCE PROCEDURES

B.6 Particulate and fugitive emissions from coal handling facilities shall be minimized by following the procedures listed below: [Rule 62-296.320(4)(c), F.A.C.]

- (1) All conveyers and transfer points shall be enclosed or covered to preclude particulate emissions (except those directly associated with coal stacking/reclaiming).
- (2) Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion.
- (3) Water sprays or chemical wetting agents and stabilizers shall be applied to storage piles, handling equipment, etc., during dry periods as necessary to all facilities to maintain an opacity of less than 20 percent at the property line for fugitive emission sources.

SUBSECTION C. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
ARMS No. 021	Raw Mill/Pyroprocessing Unit	Pyroprocessing consist of the Preheater/Calcliner, Kiln, Cooler and Raw Mill.

The proposed raw material mill system consist of a vertical roller mill capable of grinding up to 315.6 TPH of raw feed (limestone and fly ash). The raw mill will use hot preheater and cooler gases to dry the material from a feed moisture of 12% to a moisture of less than 1%. An auxiliary air heater is provided at the raw mill to provide additional heat for drying. The maximum heat input to the heater is 88 MMBtu/hr. The raw mill is vented to cyclones and then to the main plant dust collector (baghouse) to remove entrained product. The product from the cyclones and dust collector is combined and conveyed to the storage and blending silo., while the cleaned gas is vented to the atmosphere through the plant common stack.

The proposed pyroprocessing system will be capable of producing up to 160 TPH, and 1,240,000 TPY of clinker. The raw feed is introduced to the five-stage preheater/calcliner from the raw mill. The feed is preheated in the first four stages using hot gases from the calcliner/kiln. The fifth stage is the calcliner, where the fuel is burned to achieve approximately 90% of the total material calcination. The maximum heat input to calcliner is 252 MMBtu/Hr. The calcinated feed then enters the kiln, where the remaining calcination takes place. Maximum heat input to the kiln is 228 MMBtu/hr. The calcliner exit gas is recycled to the raw and coal mills. The rotary kiln delivers hot clinker at approximately 1450 degrees Celsius to the cooler.

The proposed cooler utilizes fans to force ambient air through the hot clinker bed to cool the hot clinker to 65 degrees Celsius above the ambient temperature. Combustion air required in the kiln and calcliner is obtained from the cooler exhaust gases, while the rest of the gas is passed through cyclones to remove entrained clinker dust before recycle of the gases to the raw mill.

Control equipment for the raw mill/preheater/calcliner/kiln/cooler:

The particulate emissions will be controlled by a reverse-jet fabric filter or approved equivalent. The design gas volume is 359,000 acfm at 181 °F while the raw mill is operating and 446,200 acfm at 500 °F while raw mill is down. The filter area has not been determined, and at design gas volume, the air-to-cloth ratio will be approximately 2.0 acfm/ft².

This emission unit shall comply with all applicable provisions of the 40 CFR 63 New Source Performance Standards for Portland Cement Plants, Subpart LLL.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

EMISSION LIMITATIONS

- C.1 The maximum allowable emission rates for the kiln, clinker cooler, raw mill, and preheater/precalciner shall not exceed the limits listed in Table 1-2, Air Pollutant Standards and Terms (attached). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- C.2 In order to minimize excess emissions during startup/shutdown/malfunction this emission units shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]
- C.3 The emission standard for sulfur dioxide is 0.8 lb/MMBtu for liquid fuel and 1.2 lb/MMBtu for solid fuel based on a 24 hour average. [Miami-Dade County, Chapter 24-17(2)(b)(i)]

OPERATIONAL LIMITATIONS

- C.4 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- C.5 The kiln clinker production rate shall not exceed 160 tons per hour (TPH). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
- C.6 **Fuel Combustion**
 - (1) Fuels fired in the pyroprocessing system (kiln and precalciner) shall not exceed a total heat input rate of 568 MMBtu/hr and shall consist of: bituminous coal, natural gas, petroleum coke, No. 2 fuel oil, on-specification and off-specification used oil.

Use of fuels other than those listed above is prohibited.

COAL AND PETROLEUM COKE

- (2) The coal usage rate shall not exceed 23 TPH based on a 24-hour average. The petroleum coke usage rate shall not exceed 20 TPH on a 24 hour basis.

USED OIL

- (3) The constituents and properties of the *on-spec used oil* shall comply with the following allowable concentration levels, as stipulated and defined in 40 CFR 279.10 (July 1, 1996 version), which is adopted by reference in **Rule 62-730.181, F.A.C.**

Constituent/Property	Allowable Concentration
Cadmium	2 ppm maximum
Arsenic	5 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	140 ° F minimum
Polychlorinated Byphenyls (PCBs)	Less than 2 ppm

- (4) *On-specification used oil* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1996 version). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The on-spec used oil shall be burned in compliance with Section 403.769(3), F.S.
- (5) *Off-specification used oil* burned at this facility shall not be a hazardous waste as defined by Rule 62-730.030, F.A.C., or 40 CFR Part 261 (July 1, 1996 version). It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. The off-spec used oil shall be burned in compliance with Section 403.769(3), F.S.
- (6) Any *on and off-specification used oil samples* as required by *Specific Condition No. C.6(3), (4) and (5) and C.23* shall be analyzed by EPA Recommended Analytical Procedures for Used Oil for the following constituent/property, associated unit, and using the test methods indicated:

Constituent/Property	Units	Test Methods
Cadmium	ppm	EPA SW-846(6010)
Arsenic	ppm	EPA SW-846(6010)
Chromium	ppm	EPA SW-846(6010)
Lead	ppm	EPA SW-846(6010)
Total Halogens	ppm	EPA SW-846(9252)
Sulfur	percent	ASTM D129 or ASTM D1552
Flash Point	degree F	EPA SW-846(1010)
Heat of Combustion	Btu/gal	ASTM D240
Density	lbs/gal	
Polychlorinated Byphenyls (PCB's)	ppm	EPA SW-846(0010) and EPA 680
Ash		

NOTE: Other test methods may be used only after receiving written prior approval from the Department.

- C.7 Any other operating parameters (including control equipment operating parameters) established during compliance testing and/or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit [Rule 62-297.310, F.A.C. and 62-4.070(3), F.A.C.]

MONITORING OF OPERATIONS

- C.8 The owner or operator shall record the daily production and the preheater-kiln system feed rate. The permittee may establish a relationship between material feed rates and production rates of clinker if material feed rates are measured more accurately than clinker production rates and the relationship is accurate within 10%. [Rule 62-204.800(7)(b)9., F.A.C., 40 CFR 60.63(a)]
- C.9 As required by 40 CFR 60.63(b), the owner or operator shall install, calibrate, maintain, and operate in accordance with 40 CFR 60.13 a *continuous opacity monitoring system* to measure the opacity of emissions from the cement kiln and clinker cooler control device stack. [Rule 62-204.800(7)(b)9., F.A.C.]

CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

- C.10 Continuous process monitors shall be installed for CO or O₂ to insure proper combustion practices and for use in determining plant operating parameters to optimize emissions of CO, NO_x, and SO₂. [Rule 62-4.070(3) F.A.C.]
- C.11 A continuous emissions monitoring system (CEMS) shall be installed, calibrated, maintained, operated, and used to determine compliance with the emissions limits for NO_x and SO₂ in Table 1-2. CEMS shall be installed and certified, before the initial performance test, and operated in compliance with 40 CFR 60, Appendix F, Quality Assurance Procedures (1996 version) or other Department-approved QA plan; 40 CFR 60, Appendix B, Performance Specification 1, 2, and 3 (1996 version). [Rules 62-4.070 (3) and 62-204.800, F.A.C.]
- C.12 The CEMS shall calculate and record emission rates in units of pounds of NO_x and SO₂ per hour. Every day, the 24-hour average NO_x and SO₂ emission rate for the previous day shall be calculated. Emissions shall be calculated in units of pounds per hour and pounds per ton of clinker. Daily averages are to be calculated as the arithmetic mean of each monitored operating hour. A monitored operating hour is each hour in which fuel is fired in the unit and at least two emission measurements are recorded at least 15 minutes apart. Data taken during periods of startup, or when fuel is not fired to the unit, or when the CEMS is not calibrated shall be excluded from the daily average.

To the extent the monitoring system is available to record emissions data, the CEMS shall be operated and shall record data at all operating hours when fuel is fired in the unit, including periods of startup, shutdown, load change, continuous operation and malfunction.

Opacity monitor downtimes and excess opacity emissions, which include startup emissions, shall be reported on a quarterly basis using the SUMMARY REPORT in 40 CFR 60.7. A detailed report of the cause, duration, magnitude, and corrective action taken or preventative measures adopted for each excess emission occurrence, and a listing of monitor downtime occurrences shall accompany the

SUMMARY REPORT when the total duration of excess emissions is 1% or greater or if the monitoring system downtime is 5% or greater of the total monitored operating hours.

- C.13 The monitoring device shall meet the applicable requirements of Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to *DERM* for review at least 45 days prior to replacement of a any CEMS. [Rule 62-4.070 (3) F.A.C and Rule 62-204.800, F.A.C.]

TEST METHODS AND PROCEDURES

- C.14 For emissions other than NO_x and SO₂, compliance with the allowable emission limiting standards listed in Table 1-2 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1996, version) and 40 CFR 61 Appendix B 1996, version) adopted by reference in Chapter 62-204, F.A.C.

Method 5	Determination of Particulate Matter Emissions from Stationary Sources.
Method 7 or 7 e	Determination of Nitrogen Oxide Emissions from Stationary Sources
Method 8	Determination of Sulfuric Acid Mist from Stationary Sources.
Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources.
Method 10	Determination of Carbon Monoxide Emissions from Stationary Sources.
Method 23	Determination of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans from Stationary Sources
Method 25 or 25A	Determination of Volatile Organic Compound Emissions from Stationary Sources.
Method 29	Determination of Lead, Beryllium, and Mercury from Stationary Sources.

Note: PM10 will be tested pursuant to 40 CFR 51, Appendix M

Emission testing shall be performed at the kiln/cooler main stack during a period when the kiln precalciner, cooler, raw mill and preheater are operating simultaneously and under normal operating conditions. EPA-reference methods for sampling pollutants shall be as specified in 40 CFR 60, Appendix A.

These emission units shall comply with all applicable requirements of Rule 62-297.310, F.A.C. General Test Requirements and 40 CFR 60.8. Performance Tests. Table 2-1, Compliance Requirements (attached) also lists the EPA methods.

Testing of emissions shall be conducted with the emission unit operating at capacity. The permittee shall provide the *DERM* with a *protocol* that will outline the different fuel scenarios (% of total heat input) that this unit will be burning. Tarmac shall obtain the test data necessary to determine whether this kiln is capable of accommodating the burning of coal or petroleum coke and all of the other supplemental fuels specified on Specific Condition C.6. Fuel Combustion. The fuel scenarios tested shall represent the actual combustion percentage (% of total heat input) that is going to be maintained while burning supplemental fuels during normal operation. The frequency of testing shall be determined by the *DERM*.

Annual test are required for NO_x and SO₂.

Permitted capacity is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the unit may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for the purpose of additional compliance testing to regain the permitted capacity in the permit. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

C.15 The visible emissions test shall be conducted by a certified observer and should be 180 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur [40 CFR 60.11 and Rule 62-297.310 (7), F.A.C.].

C.16 Compliance with the particulate matter standard contained in Table 1-2 (attached) shall be determined using EPA Method 5. The emission rate (E) of particulate matter shall be computed for each run using the following equation: [FR volume 64 # 113 63.1349, NESHAP Portland Cement Plant, Subpart LLL)

$$E = (c_s \times Q_{sd}) / (P)$$

where:

E = emission rate of particulate matter, kg/Mg of kiln feed.

c_s = concentration of particulate matter, kg/dscm.

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr.

P = total kiln feed (dry basis) rate, Mg/hr.

C.17 The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler. [Rules 62-204.800 and 62-297.401, F.A.C. 40 CFR 60.64(b)(1) - (3)].

C.18 Suitable methods shall be used to determine the kiln feed rate (P), for each run. Material balances over the production system shall be used to confirm the feed rate [40 CFR 60.64(3)].

OPERATING PROCEDURES

C.19 Operating procedures shall include good combustion practices and proper training of all operators and supervisors. The good combustion practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.].

RECORDKEEPING AND REPORTING REQUIREMENTS

C.20 The owner or operator shall submit reports of excess emissions based upon data from the continuous opacity monitoring system. Periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity exceeds that allowed in Table 1-2. The content of these reports must comply with the requirements in 40 CFR 60.7(d). Such reports shall be submitted quarterly pursuant to 40 CFR 60.7 (c). [Rule 62-204.800, F.A.C.; 40 CFR 60.63(d), 60.65(a) and 40 CFR 60.7].

- C.21 In order to document compliance with Specific Condition No. C6(2) **Coal and Petroleum coke**, a fuel usage control system shall be established to assure that the coal and petroleum coke usage rates does not exceed 23 TPH and 20 TPH based on a 24-hour average respectively.
- C.22 In order to document compliance with Specific Conditions No. C.6(3) through C.6(6) **Used Oils**, the following requirements shall be adhered to as a minimum:
- (1) Recordkeeping when burning used oil shall be in accordance with applicable provisions of 40 CFR Part 279, Subpart B and Subpart G (July 1, 1996 version), Standards For The Management of Used Oil and Chapter 62-710, F.A.C.
 - (2) The following shall be recorded on the delivery receipt:
 - the use of tamper proof seals on the delivery receipt
 - the volume of fuel delivery
 - a cross reference to the analysis which establishes that the used oil meets EPA used oil fuel specifications
 - the results of the screening analysis
 - the name of the person performing the test
 - the specific test kit used
 - the amount of oil sampled
 - the amount and name of the solution used to dilute the oil
 - (3) The following procedures shall be implemented:
 - On and off spec used oil that is delivered without a delivery receipt containing all the above information, or which is not properly sealed, or for which the delivery receipt does not contain all the necessary information, is not to be accepted and the DERM is to be notified by phone immediately (with written confirmation to follow), if such a delivery is attempted.
 - Verification by signature on the delivery receipt shall be provided by plant personnel that the delivery truck arrived on site with all seals intact. As delivered samples of all used oil fuel received shall be accumulated through each quarter for each supplier.
 - The results of each sample analysis (on the laboratory's letterhead) shall be submitted to the DERM within 30 days after a sample is taken and analyzed.
 - The dates and quantities of both on and off-spec purchased used oil transferred to the facility storage tank shall be reported quarterly (i.e., Jan-Mar, April-June, July-Sept, and Oct-Dec). The report is due in the month following the ending quarter.
 - The unused portion of the used oil sample shall be retained for six months following the submittal of the analyses in case further testing is required.
- C.23 All measurements, records, and other data required to be reported by the permittee shall be submitted to the DERM on a quarterly basis with the start of commercial operation in accordance with 40 CFR 60.7. All measurements, records and other data required to be maintained by the permittee shall be retained for at least 5 years following the date on which such measurements, records, or data are recorded. The data shall be available to the DERM or FDEP staff as requested. [40 CFR 60.7]

- C.24 The owner or operator shall submit reports of the malfunction information required to be recorded by 40 CFR 60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in de-energization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere. [Rule 62-204.800, F.A.C., 40 CFR 60.65 (c)]
- C.25 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance log to include; at a minimum, the following information:
- The data collected from in-stack monitoring instruments
 - The records on daily feed rates and clinker production rate
 - The amount and type of fuel burned
 - Calibration logs for all instruments
 - Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit;
 - The following fuel records shall be maintained for a minimum of five (5) years and made available upon request:
 1. Coal
 - (a) The coal usage rate in tons per day;
 - (b) The average sulfur content and heating value (Btu/lb) of each coal shipment based upon analysis of a sample representative of the shipment (trainload).
 2. Liquid Fuels
 - (a) The fuel type (number) and usage rate in gal per day;
 - (b) Records of the sulfur content and heating value (Btu/gal) of each oil shipment based upon analysis of a sample representative of the shipment.
 3. Natural Gas
 - (a) The fuel usage rate in cubic feet per day;
 - (b) The average heating value (Btu/ft³) provided by the gas supplier.

All measurements, records, and any other data required to be maintained by Tarmac shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the FDEP and to the DERM upon request. DERM shall be notified in writing at least 15 days prior to the testing (auditing) of any emission measurement instrument required to be operated by these specific conditions in order to allow witnessing by authorized personnel. [Rule 62-4.070(3), F.A.C.]

SUBSECTION D. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
ARMS No. 010, 011, 012, 13 and 022	Finish Mill #1 - #5	Finish Mill # 1- #5 and associated conveyors, separators and coolers.
ARMS No. 008 & 009	Clinker Handling and Storage	Clinker Silos 1,2,4,5,11,12, 18-28 and Slag Dryer
ARMS No. 014, 015 and 016	Cement Storage, Packhouse & Loadout	Cement Silos 1-12, Bulk Loadout Unit #1,#2 and #3 and Packhouse

EMISSION LIMITATIONS

- D.1 The permittee shall not cause or allow to be discharged into the atmosphere visible emissions or particulate emissions that exceed the limits given in Table 1-1. [Rule 62-210.200., F.A.C. (Definitions - Potential Emissions)]
- D.2 In order to minimize excess emissions during startup/shutdown/malfunction these emission units shall adhere to best operational practices. [Rule 62-210.700., F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- D.3 This cement plant and associated equipment is allowed to operate continuously (8760 hours/year) [Rule 62-210.200., F.A.C. (Definitions - Potential Emissions)].

TEST METHODS AND COMPLIANCE PROCEDURES

- D.4 The maximum permitted allowable particulate emission rate (lb/hr and gr/dscf) from these emissions units are as stated in Table 1-1. The permittee may demonstrate compliance by adhering to an opacity limit of 5% in lieu of particulate stack tests. [Rule 62-297.620(4), F.A.C.]
 In accordance with Rule 62-297.620(4), minor particulate sources equipped with baghouses with visible emissions that are greater than or equal to 5 percent opacity may require the permittee to perform a stack test in accordance with approved methods to verify compliance with the lb/hr emission limit contained in Table 1-1.
- D.5 Compliance with the allowable emission limiting standards listed in Table 1-1 shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800(7), F.A.C.

Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).

Tarmac America, Inc.
Permit Number: 0250020-008-AC

Testing of emissions must be accomplished within 90 to 100% of the permitted capacity [Rule 62-297.310(2), F.A.C.]. Failure to submit the input rates and actual operating conditions may invalidate the test [Rule 62-297.310(2), F.A.C.].

These emission units shall comply with all applicable requirements of Rule 62-297.310 General Test Requirements and 40 CFR 60.8, Subpart A, Performance Tests.

- D.6 The visible emissions test, EPA Method 9, shall be conducted by a certified observer and should be 60 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.310, F.A.C.]
- D.7 Should the DERM have reason to believe the particulate matter standards set forth in Table 1-1 are not being met, the DERM may require that compliance with the particulate emission standards be demonstrated by testing the subject emission unit. [Rule 62-297.620(4) and 62-297.310, F.A.C.]
- D.8 Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

Executed in Miami-Dade County, Florida.

DEPARTMENT OF ENVIRONMENTAL
RESOURCES MANAGEMENT

Mallika Muthiah 10/21/99
Mallika Muthiah, P.E. Date
Air Facilities Section
Air Quality Management Division

MM/mk

attachment

cc: David Buff, P.E., Golder Associates, Inc.
Isadore Goldman, P.E., Florida Department of Environment, West Palm Beach
Bruce Mitchell, Florida Department of Environmental Protection, Tallahassee

FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to § 120.52(7), F.S., with the designated DERM Clerk, receipt of which is hereby acknowledged.

Chela A. Sady
Clerk

10/21/99
Date

Table 1-1. Minor Particulate Sources

FACILITY ID NUMBER: 0250014

Permittee: Tarmac America, Inc.

Permit No.: 0250020-008-AC
New Dry Process Cement Plant

E.U. ID#	Description	Baghouse ID	Emission Basis	Emission Factor	Future PM/PM10 Emissions		Opacity
					Individual Source Total (tons/year)	Emission Unit Total (tons/year)	
003	Coal Handling/Coal Mill System	3 baghouse	0.01 gr/acf; 31,700 acfm	2.72 lb/hr	11.90	11.90	5%
008	Clinker Handling/Stg. Silos 1,2,4,5,11 and 12	K-147, K-247(a)	0.01 gr/acf; 3,000 acfm	0.26 lb/hr	1.13		20%
009	Clinker Handling/Stg. Silos 1,4,11, 17-23, 26-28.	K-347, K-447, K-521, K-522, K-633(b)	0.01 gr/acf; 9,500 acfm	0.81 lb/hr	3.57	4.69	20%
010	Finish Mill No. 1	F-130, F-113	0.01 gr/acf; 23,800 acfm	2.04 lb/hr	8.94		10%
011	Finish Mill No. 2	F-230, F-213	0.01 gr/acf; 23,800 acfm	2.04 lb/hr	8.94		10%
012	Finish Mill No. 3	F-313, F-330, F-332	0.01 gr/acf; 41,500 acfm	3.56 lb/hr	15.58		10%
013	Finish Mill No. 4	F-430, F-432, F-604, F-605	0.01 gr/acf; 67,000 acfm	5.74 lb/hr	25.15		10%
022	Finish Mill No. 5	5 Baghouses	0.01 gr/acf; 64,320 acfm	5.51 lb/hr	24.15	82.75	10%
014	Cement Silos #1-#12	F-511, F-512, F-513, F-514, F-515	0.01 gr/acf; 43,000 acfm	3.69 lb/hr	16.14		5%-20%
015	Cement Distribution Rail/Truck	B-110, B-210, B-372, B-382	0.01 gr/acf; 15,000 acfm	1.29 lb/hr	5.63		5%-10%
016	Cement Distribution-Packhouse	B-612	0.01 gr/acf; 12,000 acfm	1.03 lb/hr	4.51	26.28	5%-10%
TOTAL					125.6	125.6	

Notes:

- (a) Only one baghouse operates at any one time
- (b) K-347 and K-447 do not operate at the same time.

Table 1-2. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 0250020

Permittee:
Tarmac America, Inc.

Permit No.: 0250020-008-AC
New Dry Process Plant

E.U. ID#	Description	Pollutant ID	Fuel(s) [1]	Allowable Emissions [2]		Equivalent Emissions [3]	Basis
				Permit limits	lb/hr [4]	TPY	
#021	Raw Mill/Preheater/Calciner/Kiln System	PM	coal/gas/oil	0.33 lb/ton clinker	52.8	204.6	40 CFR 63, Subpart LLL
#021	Raw Mill/Preheater/Calciner/Kiln System	PM ₁₀	coal/gas/oil	85 % of PM	44.9	173.91	AP-42
#021	Raw Mill/Preheater/Calciner/Kiln System	SO ₂	coal/gas/oil	2.0 lb/ton clinker (24-hr avg.) 1.3 lb/ton clinker (annual avg.)	320	806	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	NO _x	coal/gas/oil	4.5 lb/ton clinker(24-hr avg.) 3.15 lb/ton clinker (annual avg.)	720	1953	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	CO	coal/gas/oil	3.6 lb/ton clinker(24-hr avg.) 2.35 lb/ton clinker (annual avg.)	576	1457	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	VOC	coal/gas/oil	0.25 lb/ton clinker	40	155	Tarmac
#021	Raw Mill/Preheater/Calciner/Kiln System	H ₂ SO ₄ mist	coal/gas/oil	0.014 lb/ton clinker	2.24	8.68	Vendor Design
#021	Raw Mill/Preheater/Calciner/Kiln System	THC	coal/gas/oil	50 ppmvd			40 CFR 63, Subpart LLL
#021	Raw Mill/Preheater/Calciner/Kiln System	Dioxin/Furan	coal/gas/oil	0.20 ng TEQ/dscm or 0.40 ng TEQ/dscm			40 CFR 63, Subpart LLL
#021	Raw Mill/Preheater/Calciner/Kiln System	VE	coal/gas/oil	20 % opacity			40 CFR 63, Subpart LLL

Notes

At a maximum design clinker production rate of 160 TPH and a dry feed rate of 277.6 TPH

- (1) Fuel combustion as specified in Specific Condition No. C.6 and the protocols established by DERM. See also Specific Condition C.14
- (2) Compliance Units. This facility shall demonstrate compliance based on these standards.
- (3) "Equivalent Emissions are based on annual emissions at 8,760 hrs/yr.
- (4) Short Term (24-hour average)

Table 2-1. Compliance Requirements.

FACILITY ID NUMBER: 0250020

Permit No.: 0250020-008-AC

Permittee:
Tarmac America, Inc.
New Dry Process Plant

ARMS E.U. ID#	Description	Pollutant Name or parameter	Fuel(s) [1]	EPA/Reference Method/CMS *	Testing	Min. Compliance Test	CMS * Compliance
					Time Frequency	Duration	
# 021	Kiln/Cooler/Raw Mill	PM/PM ₁₀	Oil/Coal /Gas/	5 or 201/201A	initial/annual [8]	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	VE	Oil/Coal/Gas/	9/COMS	initial/annual/COMS	3 one-hr run	No [4]
# 021	Kiln/Cooler/Raw Mill	SO ₂	Oil/Coal/Gas/	CEMS	daily average	continuous	Yes [6]
# 021	Kiln/Cooler/Raw Mill	NO _x	Oil/Coal/Gas/	CEMS	daily average	continuous	Yes [3]
# 021	Kiln/Cooler/Raw Mill	CO	Oil/Coal/Gas/	10 [5]	initial/annual	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	VOC	Oil/Coal/Gas/	25 or 25A [2]	initial	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	H ₂ SO ₄ mist	Oil/Coal/Gas/	8	initial	3 one-hr run	
# 021	Kiln/Cooler/Raw Mill	Hg, Pb, Be	Oil/Coal/Gas/	29	initial	3 one-hr run	
# 021	Fugitive sources	VE		9	Protocol [7]		
# 021	Minor Sources	VE		9	Initial/annual	3 one-hr run	

Notes:

- [1] Initial compliance testing shall be conducted under all the scenarios this facility is planning to operate under. Specific condition C.14. Annual testing of emissions shall be conducted during the worst case scenario that this facility would normally operate under. Frequency of testing after initial compliance shall be determined by DERM. Fuels to be burned are specified in Specific Condition C.6.
 - [2] VOC emission shall be tested initially to comply with the condition of this permit. Thereafter, compliance will be assumed provided the CO allowable emission rate is reached.
 - [3] NO_x - The continuous emission monitor (CEM) data shall be used for the Kiln for compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.
 - [4] Pursuant to 40 CFR 60, Subpart F, the kiln/cooler exhaust system shall be equipped with continuous opacity monitor system (COMS) to record the opacity at the stack to indicate proper maintenance and operation. Monitoring of the opacity of emissions shall be demonstrated by COMS pursuant to 40 CFR 60.63. Notification and recordkeeping shall be accordance with 40 CFR 60.7 and 40 CCFR 60.65.
 - [5] Continuous process monitors for CO and or O₂ to optimize combustion conditions for pollution control shall be part of the process.
 - [6] SO₂- The continuous emission monitor (CEM) data shall be used for the Kiln compliance requirement. The CEM calibration and maintenance shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.
 - [7] Protocol as approved by DERM
 - [8] Tarmac has the option of using Method 5 if they stipulate that all of the PM is PM₁₀.
- *CMS [=] compliance demonstration by a continuous monitoring system: CEMS or COMS.

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§ 63.1 Applicability.

(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 (including those requirements in part 60 of this chapter), or a standard issued under State authority.

(4) The provisions of this subpart (i.e., subpart A of this part) apply to owners or operators who are subject to subsequent subparts of this part, except when otherwise specified in a particular subpart or in a relevant standard. The general provisions in subpart A eliminate the repetition of requirements applicable to all owners or operators affected by this part. The general provisions in 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) Subpart D of this part contains regulations that address procedures for an owner or operator to obtain an extension of compliance with a relevant standard through an early reduction of emissions of hazardous air pollutants pursuant to section 112(i)(5) of the Act.

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

(9) [Reserved]

(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.

(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.



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(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).

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

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

(b) Initial applicability determination for this part.

(1) § 63.1340 specifies applicability.

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

(3) An owner or operator of a stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants who determines that the source is not subject to a relevant standard or other requirement established under this part, shall keep a record of the applicability determination as specified in § 63.10(b)(3) of this subpart.

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

(1) If a relevant standard has been established under this part, the owner or operator of an affected source shall comply with the provisions of this subpart and the provisions of that standard, except as specified otherwise in this subpart or that standard.

(2) 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 the permitting authority in the State in which the source is located. **{Area sources must obtain Title V permits.}** Emission standards promulgated in this part for area sources will specify whether -

(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);

(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

(iii) Area sources affected by that emission standard are immediately subject to the requirement to apply for and obtain a title V permit in all States. If a standard fails to specify what the permitting requirements will be for area sources affected by that standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without deferral. If the owner or operator is required to obtain a title V permit, he or she shall apply for such permit in accordance with part 70 of this chapter and applicable State regulations, or in accordance with the regulations contained in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

(3) [Reserved]

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



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

(d) [Reserved]

(e) *Applicability of permit program before a relevant standard has been set under this part.* After the effective date of an approved permit program in the State in which a stationary source is (or would be) located, the owner or operator of such source may be required to obtain a title V permit from the permitting authority in that State (or revise such a permit if one has already been issued to the source) before a relevant standard is established under this part. If the owner or operator is required to obtain (or revise) a title V permit, he/she shall apply to obtain (or revise) such permit in accordance with the regulations contained in part 70 of this chapter and applicable State regulations, or the regulations codified in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

§ 63.2 Definitions.

Additional definitions in § 63.1341.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to section 112 of the Act. Each relevant standard will define the “affected source” for the purposes of that standard. The term “affected source,” as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Sources regulated under part 60 or part 61 of this chapter are not affected sources for the purposes of part 63.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

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Commenced means, with respect to construction or reconstruction of a stationary source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance plan means a plan that contains all of the following:

(1) A description of the compliance status of the affected source with respect to all applicable requirements established under this part;

(2) A description as follows:

(i) For applicable requirements for which the source is in compliance, a statement that the source will continue to comply with such requirements;

(ii) For applicable requirements that the source is required to comply with by a future date, a statement that the source will meet such requirements on a timely basis;

(iii) For applicable requirements for which the source is not in compliance, a narrative description of how the source will achieve compliance with such requirements on a timely basis;

(3) A compliance schedule, as defined in this section; and

(4) A schedule for the submission of certified progress reports no less frequently than every 6 months for affected sources required to have a schedule of compliance to remedy a violation.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

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(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part. The effective date of a permit program established under title V of the Act (42 U.S.C. 7661) is determined according to the regulations in this chapter establishing such programs.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard; and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means the maximum achievable control technology emission limitation (MACT emission limitation) for hazardous air pollutants that the Administrator (or a State with an approved permit program) determines on a case-by-case basis, pursuant to section 112(g) or section 112(j) of the Act, to be equivalent to the emission standard that would apply to an affected source if such standard had been promulgated by the Administrator under this part pursuant to section 112(d) or section 112(h) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit issued pursuant to a program approved by the EPA into a SIP as meeting the EPA's minimum criteria for Federal enforceability, including adequate notice and opportunity for EPA and public comment prior to issuance of the final permit and practicable enforceability;

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.



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Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Lesser quantity means a quantity of a hazardous air pollutant that is or may be emitted by a stationary source that the Administrator establishes in order to define a major source under an applicable subpart of this part.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or



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on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 °K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).



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Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere
g = gram
Hz = hertz
J = joule
°K = degree Kelvin
kg = kilogram
l = liter
m = meter
m³ = cubic meter
mg = milligram = 10⁻³ gram
ml = milliliter = 10⁻³ liter
mm = millimeter = 10⁻³ meter
Mg = megagram = 10⁶ gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10⁻⁹ gram
nm = nanometer = 10⁻⁹ meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
μg = microgram = 10⁻⁶ gram
μl = microliter = 10⁻⁶ liter

(b) Other units of measure:

Btu = British thermal unit



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°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F = degree Fahrenheit
ft = feet
ft² = square feet
ft³ = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H₂O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd² = square yards
yr = year

(c) Miscellaneous:
act = actual

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avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

§ 63.4 Prohibited activities and circumvention.

(a) Prohibited activities.

(1) No owner or operator subject to the provisions of this part shall operate any affected source in violation of the requirements of this part except under-

- (i) An extension of compliance granted by the Administrator under this part; or
- (ii) An extension of compliance granted under this part by a State with an approved permit

program; or

- (iii) An exemption from compliance granted by the President under section 112(i)(4) of the

Act.

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

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

(4) [Reserved]

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

- (i) A title V permit has been issued to that source; or
- (ii) If a title V permit has been issued to that source, whether such permit has been revised or

modified to incorporate the emission standard.

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

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

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

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

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

§ 63.5 Construction and reconstruction.

(a) Applicability.

(1) This section implements the preconstruction review requirements of section

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112(i)(1) for sources subject to a relevant emission standard that has been promulgated in this part. In addition, this section includes other requirements for constructed and reconstructed stationary sources that are or become subject to a relevant promulgated emission standard.

(2) After the effective date of a relevant standard promulgated under this part, the requirements in this section apply to owners or operators who construct a new source or reconstruct a source after the proposal date of that standard. New or reconstructed sources that start up before the standard's effective date are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) Upon construction an affected source is subject to relevant standards for new sources, including compliance dates. Upon reconstruction, an affected source is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new major affected source or reconstruct a major affected source subject to such standard, or reconstruct a major source such that the source becomes a major affected source subject to the standard, without obtaining written approval, in advance, from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that the source becomes an affected source subject to the standard, without notifying the Administrator of the intended construction or reconstruction. The notification shall be submitted in accordance with the procedures in § 63.9(b) and shall include all the information required for an application for approval of construction or reconstruction as specified in paragraph (d) of this section. For major sources, the application for approval of construction or reconstruction may be used to fulfill the notification requirements of this paragraph.

(5) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, no person may operate such source without complying with the provisions of this subpart and the relevant standard unless that person has received an extension of compliance or an exemption from compliance under § 63.6(i) or § 63.6(j) of this subpart.

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard shall be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source. If a new affected source is added to the facility, the new affected source shall be subject to all the provisions of the relevant standard that are established for new sources including compliance dates.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section shall submit to the Administrator an application for approval of the construction of a new major affected source, the reconstruction of a major affected source, or the reconstruction of a major source such

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that the source becomes a major affected source subject to the standard. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The application shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5) of this subpart. The owner or operator may submit the application for approval well in advance of the date construction or reconstruction is planned to commence in order to ensure a timely review by the Administrator and that the planned commencement date will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;
- (E) The expected commencement date of the construction or reconstruction;
- (F) The expected completion date of the construction or reconstruction;
- (G) The anticipated date of (initial) startup of the source;
- (H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each point of emission for each hazardous air pollutant that is emitted (or could be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations. An owner or operator who submits approximations of control efficiencies under this subparagraph shall submit the actual control efficiencies as specified in paragraph (d)(1)(iii) of this section.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section -

- (i) A brief description of the affected source and the components that are to be replaced;

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(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in subparagraphs (d)(3) (iii) through (v) of this section, above.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) Approval of construction or reconstruction.

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the re-placements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with -

(i) Notice of the information and findings on which the intended denial is based; and

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(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) Approval of construction or reconstruction based on prior State preconstruction review.

(1) The Administrator may approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new or reconstructed source who is subject to such requirement demonstrates to the Administrator's satisfaction that the following conditions have been (or will be) met:

(i) The owner or operator of the new or reconstructed source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located before the promulgation date of the relevant standard and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant emission standard as proposed, if the source is properly built and operated;

(ii) In making its finding, the State has considered factors substantially equivalent to those specified in paragraph (e)(1) of this section; and either

(iii) The promulgated standard is no more stringent than the proposed standard in any relevant aspect that would affect the Administrator's decision to approve or disapprove an application for approval of construction or reconstruction under this section; or

(iv) The promulgated standard is more stringent than the proposed standard but the owner or operator will comply with the standard as proposed during the 3-year period immediately following the effective date of the standard as allowed for in § 63.6(b)(3) of this subpart.

(2) The owner or operator shall submit to the Administrator the request for approval of construction or reconstruction under this paragraph no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2) of this subpart). The owner or operator shall include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph.

§ 63.6 Compliance with standards and maintenance requirements.

(a) Applicability.

(1) The requirements in this section apply to owners or operators of affected sources for which any relevant standard has been established pursuant to section 112 of the Act unless -

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) 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



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pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard upon startup of the source.

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

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall comply with the emission standard under section 112(f) not later than the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator shall comply with the standard as provided in paragraphs (b)(1) and (b)(2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or paragraph (b)(4) of this section shall notify the Administrator in accordance with § 63.9(d) of this subpart.

(6) [Reserved]

(7) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected new area source (i.e., an area source for which construction or reconstruction was commenced after the proposal date of the standard) that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard, shall comply with the relevant emission standard immediately upon becoming a major source. This compliance date shall apply to new area sources that become affected major sources regardless of whether the new area source previously was affected by that standard. The new affected major source shall comply with all requirements of that standard that affect new sources.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) After the effective date of a relevant standard established under this part pursuant to section 112(f) of the Act, the owner or operator of an existing source shall comply with such standard not later than 90 days after the standard's effective date unless the Administrator has granted an extension to the source under paragraph (i)(4)(ii) of this section.

(3)–(4) [Reserved]



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

(d) [Reserved]

(e) *Operation and maintenance requirements.*

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

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

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

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

(3) *Startup, shutdown, and malfunction plan.*

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

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

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

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

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



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

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

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

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

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

- (A) Does not address a startup, shutdown, or malfunction event that has occurred;
- (B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or
- (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

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

(f) *Compliance with nonopacity emission standards -*



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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in

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

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

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

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

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

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

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

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

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in

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

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

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

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

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

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

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

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

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in

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

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

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

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

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

- (A) Does not address a startup, shutdown, or malfunction event that has occurred;
- (B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or
- (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

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

(f) *Compliance with nonopacity emission standards -*

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

(2) *Methods for determining compliance.*

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

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

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

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

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

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

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

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

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

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in



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accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards -*

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

(2) *Methods for determining compliance.*

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

(ii) [Reserved]

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

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

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

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

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

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission

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observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) Test duration specified in Subpart LLL.

(iii) Test duration specified in Subpart LLL.

(iv) Test duration specified in Subpart LLL.

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

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

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has

notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument

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used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

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

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions*

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

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(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the appropriate authority not later than 12 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are not including emission points in an emissions average, or not later than 18 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are including emission points in an emissions average. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards, e.g., a compliance date specified by the standard is less than 12 (or 18) months after the standard's effective date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 15 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:



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(1) The date by which contracts for emission control systems or process changes for emission control will be awarded, or the date by which orders will be issued for the purchase of component parts to accomplish emission control or process changes;

(2) The date by which on-site construction, installation of emission control equipment, or a process change is to be initiated;

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C) A description of interim emission control steps that will be taken during the extension period, including milestones to assure proper operation and maintenance of emission control and process equipment; and

(D) Whether the owner or operator is also requesting an extension of other applicable requirements (e.g., performance testing requirements).

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the

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application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraphs (i)(10)(iii) or (i)(10)(iv) of this section is not met.

(15) [Reserved]



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(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.* {§ 63.1349 has specific requirements}

(1) Unless otherwise specified, this section applies to the owner or operator of an affected source required to do performance testing, or another form of compliance demonstration, under a relevant standard.

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source shall perform such tests as follows -

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial startup date before the effective date; or

(ii) Within 180 days after initial startup for a new source that has an initial startup date after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in an applicable subpart of this part for an existing source subject to an emission standard established pursuant to section 112(d) of the Act, or within 180 days after startup of an existing source if the source begins operation after the effective date of the relevant emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance for an existing source that obtains an extension of compliance under § 63.6(i); or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(a) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f) [see § 63.6(b)(4)]; or

(vii) [Reserved]; or (viii) [Reserved]; or

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

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

(b) *Notification of performance test.*

(1) The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to

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begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test. Observation of the performance test by the Administrator is optional.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section, due to unforeseeable circumstances beyond his or her control, the owner or operator shall notify the Administrator within 5 days prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program.*

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:



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(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard, the owner or operator shall conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator shall refrain from conducting the performance test until the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see paragraph (f) of this section). If the Administrator does not approve the site-specific test plan (if review is requested) or the use of the alternative method within 30 days before the test is scheduled to begin, the performance test dates specified in paragraph (a) of this section may be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the Administrator approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) *Performance test method audit program.* The owner or operator shall analyze performance audit (PA) samples during each performance test. The owner or operator shall request performance audit materials 45 days prior to the test date. Cylinder audit gases may be obtained by contacting the Cylinder Audit Coordinator, Quality Assurance Division (MD-77B), Atmospheric Research and Exposure Assessment Laboratory (AREAL), U.S. EPA, Research Triangle Park, North Carolina 27711. All other audit materials may be obtained by contacting the Source Test Audit Coordinator, Quality Assurance Division (MD-77B), AREAL, U.S. EPA, Research Triangle Park, North Carolina 27711.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

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

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

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

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

(2) Safe sampling platform(s);

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

(4) Utilities for sampling and testing equipment; and

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

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(e) Conduct of performance tests.

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

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

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

(ii) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) Use of an alternative test method -

(1) *General.* Until permission to use an alternative test method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

(i) Notifies the Administrator of his or her intention to use an alternative test method not later than with the submittal of the site-specific test plan (if requested by the Administrator) or at least 60 days before the performance test is scheduled to begin if a site-specific test plan is not submitted;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this

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section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate when the Administrator approves or disapproves the site-specific test plan required under paragraph (c) of this section. If the Administrator finds reasonable grounds to dispute the results obtained by the Method 301 validation process, the Administrator may require the use of a test method specified in a relevant standard.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) Data analysis, recordkeeping, and reporting.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

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November 30, 1998

Air Facilities Section
 Metro Dade County Environmental Resources Management
 33 SW 2nd Avenue, Suite 900
 Miami, FL 33130-6925

RECEIVED

MAR 25 2005

BUREAU OF AIR REGULATION

Attention: Ms. Eva Kunath, Engineer I

RE: Tarmac America, Inc.
 New Dry Process Cement Plant
 File No. 0250020-008-AC
 Pennsuco Cement Plant

Dear Ms. Kunath:

Tarmac America, Inc. has received the ERM's request for further information dated July 29, 1998, regarding the air construction permit application for a new dry process cement plant to be installed at the existing Pennsuco cement plant. Presented below are responses to the ERM's questions and comments, in the same order as they appear in the letter. Please consider these responses in issuing the draft construction permit.

Facility Wide

1. Statement is acknowledged; no response is needed.
2. A letter of authorization for Mr. Quaas will be forthcoming directly from Mr. Quaas under separate cover.
3. There have been no other contemporaneous increase or decreases in emissions at the Pennsuco facility during the last five years. During the last five years, the plant has operated normally under its existing operating permit. Two slag dryers were permitted during this time, and both underwent PSD review themselves. The first slag dryer has been shutdown and therefore it is not considered in the applicability analysis. The second slag dryer is operational, and it has been included in the applicability analysis.
4. The Pennsuco plant is located beyond 10 km from the nearest point of the Everglades National Park (ENP) Class I area boundary. The attached map shows the relative location of Pennsuco and the ENP. Tarmac is located approximately 17 km from the Class I area.
5. As discussed above in the response to Comment 3, there have been no contemporaneous increases or decreases at Pennsuco during the last five years, other than the slag dryer, which underwent PSD review.
6. Whenever a PSD permit is issued, the PSD baseline for determining applicability is reset to zero for the pollutants for which PSD review was required. Any previous

contemporaneous increases or decreases in emissions would have been considered in the PSD review and in issuing the PSD permit. Therefore, the previous PSD reviews for the facility have no bearing on the present applicability analysis, except in the case of the slag dryer, as described above.

- 4b. The only HAPs test data for the Pennsuco facility are the test data from Kiln No. 3, as presented in the application. The testing was performed on Kiln No. 3 as part of an application to utilize Dade County Resource Recovery ash as a raw material. The testing consisted of two tests; one using the DCRR ash, and one using Tarmac's normal source of ash. These tests were conducted in 1992 and 1993.
- 5b. The proposed new plant will comply with the Miami-Dade County air pollution control regulations. The emission standard for sulfur dioxide is 0.8 lb/MMBtu for liquid fuel and 1.2 lb/MMBtu for solid fuel [Sec. 24-17(2)(a)(i)]. Tarmac's proposed sulfur dioxide emission rate for the new pyroprocessing system is calculated as follows:

Annual average:

$$\begin{aligned} 160 \text{ TPH clinker} \times 1.3 \text{ lb/ton} &= 208 \text{ lb/hr SO}_2 \\ 208 \text{ lb/hr} / 568 \text{ MMBtu/hr} &= 0.37 \text{ lb/MMBtu} \end{aligned}$$

Maximum 24-hour average:

$$\begin{aligned} 160 \text{ TPH clinker} \times 2.0 \text{ lb/ton} &= 320 \text{ lb/hr SO}_2 \\ 320 \text{ lb/hr} / 568 \text{ MMBtu/hr} &= 0.56 \text{ lb/MMBtu} \end{aligned}$$

This represents the maximum SO₂ emission rate for all fuels which are proposed to be utilized by the new plant. Note that Tarmac is now proposing a higher short-term (24-hour) SO₂ emission rate of 2.0 lb/ton clinker.

- 6b. The new plant will comply with the MACT standards upon startup of the facility. Since the MACT standards are not yet promulgated, a comparison can only be made with the proposed standards. This comparison is presented in Table 1 attached. As shown, the proposed new plant would comply with the new source MACT standards as proposed. Note that Tarmac is not proposing a total hydrocarbon (THC) limit at this time, since it is not necessary to do so. Volatile Organic Compound (VOC) emissions are estimated in the application. In addition, Tarmac is revising the estimated maximum dioxin/furan emissions to equal the proposed MACT limit. A revised Table 2-3 is attached.
7. The test data from Kiln No. 3 was converted to a lb/ton clinker basis, as shown in Appendix A of the application. These lb/ton clinker emission factors were then used in Table 2-3 to calculate the maximum expected emissions from the new system at 160 TPH of clinker production rate. As described above, only Kiln No. 3 at Pennsuco has been tested for HAPs. As described on page A-4 of the application, the highest emission factor from either the source testing of Kiln No. 3 or from AP-42 was used to estimate the maximum expected emission rate for each HAP. As shown in Table 2-3, AP-42 factors were used for most pollutants.

8. The annual baseline emission rate for each pollutant is based on an activity factor times an emissions factor. All activity factors were based on the average of the last two years of actual operation (1996-1997), as required by PSD regulations. The emission factor used for each pollutant was based on the most representative test data. For some pollutants, such as VOC, sulfuric acid mist, lead and mercury, annual compliance testing is not conducted at Pennsuco, and therefore the available data was used (i.e., 1992 HAPs testing). In the case of NO_x emissions from Kiln No. 2, since actual emissions have been in excess of the permit limit of 113.8 lb/hr, the permit limit was used as the emissions factor.
9. A copy of the vendor's performance letter is attached. Note that the proposed emission levels are most representative of an annual averaging time. On a short-term basis, higher emission levels could be experienced due to process conditions. To provide for this, Tarmac is proposing higher short-term (24-hour average) emissions as follows:

SO ₂	2.0 lb/ton clinker; 320 lb/hr
NO _x	4.5 lb/ton clinker; 720 lb/hr
CO	3.6 lb/ton clinker; 576 lb/hr

Updated pollutant detail pages for emissions unit EU2 are attached which reflect these changes.

10. No hazardous wastes or hazardous materials will be burned in the new pyroprocessing system. The only fuels combusted in the process are described in the application, and are as follows: coal, petroleum coke, No. 2 fuel oil, No. 6 fuel oil and natural gas.
11. Procedures employed to minimize excess emissions during startup and shutdown include the following:
 - Excess emissions from the pyroprocessing system are minimized during startup by warming the kiln up slowly to operating temperature. Fuel is burned at the kiln (burner is at kiln discharge end) until the kiln operating temperature is reached. Fuel flow is then started in the preheater/precalciner.. This warmup procedure may take up to 24 hours. Therefore, excess emissions could occur for up to 24 hours during a cold startup.
 - All air pollution control devices are operating prior to equipment startup, and remain operating for a short time after equipment shutdown.
 - Equipment startup and shutdown times are minimized to the extent practical.
12. No manufacturer has yet been selected for the new baghouses. The information provided in the attachments to the application is currently all the available information for baghouses. If requested by the Department, Tarmac will submit detailed manufacturer's specifications for the baghouses when it becomes available, and prior to actual installation of the baghouses.
13. Baghouse flow rates in terms of dscfm are not utilized anywhere in the application, and emission rates are not based on the dscfm flow rate; therefore, this information is not considered to be necessary. Please inform us if you still require this information.

14. An Air Quality Related Values analysis and impacts on soils, vegetation and visibility are only required under the regulations for PSD review. The proposed project is not subject to PSD review.
15. Good combustion practices to minimize NO_x, CO, and VOC emissions include operating the precalciner and kiln in the most energy efficient manner. Energy efficiency is important from both an environmental and economic perspective, and thus there is adequate incentive to minimize fuel consumption. Although high energy efficiency does not by itself insure lower emissions, emission rates are generally related to the total amount of fuel combusted. In addition to energy efficiency, other factors related to good combustion practices include air/fuel mixing, excess air, staged combustion, and residence time and temperature of combustion gases. Proper air/fuel mixing is insured through proper burner design. Excess air is maintained throughout the system at adequate levels to promote complete combustion, although too high of an excess air level must be avoided or the potential for an explosion is increased. The dry process system inherently minimizes NO_x and SO₂ emissions by staging the combustion process. The total heat requirements are supplied in two stages (preheater and kiln), instead of a single stage as in a wet process system. This staged combustion process significantly reduces NO_x emissions. The preheater/precalciner/kiln system also provides greatly increased contact of the combustion gases and the cement clinker, increasing absorption of SO₂ into the clinker product.
16. All emission units should be classified as "regulated". This appears to be an error in the printing of the application form. Corrected application pages are attached.
17. Revised application form pages and attachment pages are attached which provide greater detail regarding calculations.
18. A revised Table 2-1 is provided showing greater detail regarding fuels and combustion sources. There are only two points in the process where combustion takes place; in the precalciner and in the kiln. Specifications for each fuel type were provided in Attachment TA-E02-L2. The only fuel blending which will take place will be the blending of coal and petroleum coke. While no limit is placed upon the amount of petroleum coke utilized, it will typically be blended with coal up to a 50 percent blend.
19. At this time Tarmac would like to remain flexible in its ability to utilize a number of fuels. Actual usage of any fuel will be based upon availability and cost. Since the future status of these factors cannot be predicted, Tarmac seeks maximum flexibility. It is envisioned that coal/pet coke will be utilized as primary fuels. Typically, no supplemental firing of other fuels is needed. Natural gas and fuel oils will be used typically only for startup, shutdown, and as a backup fuel.
20. There is no known requirement for the new plant to have an Operation and Maintenance (O&M) plan. O&M plans are required as part of operating permits for sources located in PM nonattainment or maintenance areas (which Dade County is not) for sources which have RACT limits. O&M plans, if required, would normally be part of an application to operate, not a construction permit application.

Coal Handling

21. Collected dust from the two baghouses, serving the coal and pet coke feed bins, drop back into the feed bins. The dust captured in the coal mill baghouse (this dust is actually fuel) is discharged into the coal surge bins. These are enclosed systems, and no fugitive dust results from the transfer of this dust.
22. Coal and petroleum coke have similar handling characteristics, and are treated the same in this application. Therefore, the calculations are the same regardless if coal or petroleum coke is used.
23. In the application form, page 24, when an emissions unit has more than one stack, a "representative" stack (in terms of the greatest emissions) must be provided. In the attachments, individual data for each stack is provided. Generally, data shown on page 24 is the single emission point with the highest emissions.
24. The potential emissions provided for PM in Item 3 are the sum of the point source and fugitive emissions for the entire emissions unit, and they do appear to match the calculations in Item 8, as shown below:

$$\begin{aligned} 2.72 \text{ lb/hr} + 24.75 \text{ lb/hr} &= 27.47 \text{ lb/hr} \\ 11.9 \text{ TPY} + 25.7 \text{ TPY} &= 37.6 \text{ TPY} \end{aligned}$$

25. PM10 potential emissions are incorrect and a revised page is attached.

Raw Mill and Pyroprocessing Unit

26. The system will be designed to produce 160 TPH clinker based on a raw feed amount of 266 TPH. This represents approximately 10 percent over the manufacturer's nominal rated capacity. Manufacturers are generally conservative in their specifications, so Tarmac is planning on achieving this level of production for the new plant. The attached process flow diagrams, not provided in the original application, detail the flow of materials, fuels and air. The flow diagrams are based a nominal design capacity of 144 TPH clinker. therefore all quantities should be multiplied by 10 percent. Note that this represents preliminary design information, and final design may be different. However, the maximum design capacity of 160 TPH clinker will not change.
27. See response to Item 26 above.
28. See the attached flow diagrams for the components of the feed streams. The precise mix proportion of the raw feed is proprietary information.
29. Please note that the dscfm flow rate is not used for any emission calculations in the application. Emission factors are either in terms of lb/ton of clinker produced for the pyroprocessing system. On the application form, page 24, when an emissions unit can operate in different ways which affect stack parameters, a "representative" stack must be provided. In the comments, individual data for each stack is provided.

30. The label "NS" represents a pollutant which has no applicable standard. The only pollutants for which there currently exists a "standard" are PM, SO₂, and NO_x. Note that the emission units pollutant page is in error, and an updated page is attached. PM is regulated under the federal NSPS as well as Rule 62-296.407, F.A.C. Sulfur dioxide is regulated under the Dade County standards, Rule 24-17. Nitrogen oxides are regulated under the RACT standards in Rule 62-296.570, F.A.C. MACT standards have been proposed for cement plants, but are not yet promulgated.
31. For the new pyroprocessing system, limestone from the adjacent Tarmac aggregate plant and quarry will be transported by conveyor to the limestone silo. This material is wet, and minimal fugitive dust emissions are expected from handling this material. Other raw materials such as gypsum and fly ash will be brought in by railcar or truck and pneumatically unloaded directly to the storage silos. No storage of these materials on the ground is anticipated at this time. These materials are similarly wet, and fugitive dust emissions from the unloading operation are expected to be minimal.
32. As discussed in our meeting, this information is no longer required.
33. As explained in our meeting, the necessary calculation detail is provided in the application.
34. In Table 3-6, estimated fugitive emissions labeled as "Existing Cement Plant" were based on the last two years of actual operation. The calculation detail is shown in Appendix B, Tables B-1, B-3, B-5 and B-6. The activity factors used for these calculations and shown in the tables are based on the last two years of actual operation. The Appendix B tables have been revised to more clearly show the emissions and basis in relation to those figures presented in Table 3-6.
35. a. In Table 3-7, the column labeled "Material Handling Point Sources" includes all point sources shown in Tables 3-3 and 3-4, which includes the coal handling and coal mill system baghouses. The column labeled "Material Handling Fugitive Sources" includes all sources shown in Table 3-6, which includes batch drop operations and vehicular traffic.

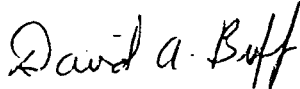
b. Detailed calculations for Material Handling Point and Material Handling Fugitive sources are shown in Tables 3-3, 3-4 and 3-6. To provide further clarification, emission unit numbers have been added to Tables 3-3 and 3-4, and Table 3-6 has been clarified.
36. In the application form, page 24, when an emissions unit has more than one stack, a "representative" stack (in terms of the greatest emissions) must be provided. In the attachments, individual data for each stack is provided. Generally, data shown on page 24 is the single emission point with the highest emissions. Please note that the dscfm flow rate is not used for any emission calculations in the application, and therefore is not shown on the form.

37. On page 28 of the PM pollutant detail information page, the total potential emissions from all eleven baghouses comprising this emissions unit is given. However, only two of these baghouses currently have allowable emissions limits: these are Baghouses F-512 and B-621. Therefore, the allowable emissions for these two baghouses are shown on page 29.
38. In the application form, page 24, when an emissions unit has more than one stack, a "representative" stack (in terms of the greatest emissions) must be provided. In the attachments, individual data for each stack is provided. Generally, data shown on page 24 is the single emission point with the highest emissions. The flow rate shown of 18,000 acfm represents Baghouse F-511, which is the highest emitting single emission point within the emissions unit. This baghouse was selected as the most representative emission point due to its higher emissions.

Attached are four (4) copies of the revised pages to the application. Thank you for consideration of this information. Please call if you have any questions concerning this matter.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E.
Principal Engineer
Florida P.E. #19011
SEAL

DB/arz

Enclosure

cc: Scott Quaas, Tarmac
Rob Zeller

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Table 1. Summary of Proposed Maximum Emissions for Raw Mill/Kiln/Cooler and Proposed MACT Limits, Tarmac Cement Plant

Pollutant	New Cement Plant		Proposed MACT Limit for New Sources (a)
	Proposed Maximum Emissions (Application Units)	Proposed Maximum Emissions (MACT Equivalent Units)	
Particulate Matter	0.33 lb/ton clinker (b)	0.20 lb/ton dry feed (b)	0.30 lb/ton dry feed for Raw Mill/Kiln 0.10 lb/ton dry feed for Cooler only
Dioxins/Furans	2.3E-9 lb/ton clinker (b) (c)	1.7E-10 gr TEQ/dscf	1.7E-10 gr TEQ/dscf (d)
Total Hydrocarbons (f)	N/A	N/A	50 ppmvd (as propane) (e)

(a) Proposed 40 CFR 63, Subpart LLL.

(b) Combined emission rate for raw mill, kiln, and cooler. Clinker rate is 160 TPH and dry feed rate is 266.7 TPH.

(c) Based on all Dioxin/Furans having a TEQ of 1 (total D/F emissions of 2.3E-9 lb/ton clinker or 3.67E-07 lb/hr).

(d) Based on actual flow rate of 359,200 acfm (252,088 dscfm), 181°F outlet temperature, and 14.8% water content (Raw Mill operating).

(e) Proposed limit for new source with PM control device operated at <400°F.

(f) Tarmac has estimated maximum VOC emissions for PSD applicability purposes; THC emissions were not estimated.

N/A = not applicable

REVISED EMISSION UNIT SECTIONS

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Segment Description and Rate: Segment 2 of 2

<p>1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Mineral Products; Bulk Material Conveyors; Coal</p>	
<p>2. Source Classification Code (SCC): 3-05-101-03</p>	
<p>3. SCC Units: Tons Processed</p>	
<p>4. Maximum Hourly Rate: 23</p>	<p>5. Maximum Annual Rate: 176,080</p>
<p>6. Estimated Annual Activity Factor:</p>	
<p>7. Maximum Percent Sulfur:</p>	<p>8. Maximum Percent Ash:</p>
<p>9. Million Btu per SCC Unit:</p>	
<p>10. Segment Comment (limit to 200 characters): Maximum hourly rate is 22.72 TPH and relates to coal/petcoke consumption by plant. Based on 568 MMBtu/hr combined heat input to Calciner, Kiln and Raw Mill, and 12,500 Btu/lb.</p>	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	11.38 lb/hour	20.9 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:	0.01 gr/acf	
Reference: Manufacturer Info.		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p>31,700 acfm x 0.01 gr/acf x 60 min/hr x 1 lb/7000 gr = 2.72 lb/hr; 2.72 lb/hr x 8760 hr/yr x 1 ton/2000 lb = 11.9 TPY; Fugitive emissions are 8.67 lb/hr and 9.0 TPY based on 2080 hr/yr; See Appendix B and Attachment TA-E01-H9.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<p>Refer to Attachment TA-E01-H9.</p>		

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

24-17 Dade County Code - Sulfur Dioxide
40CFR60.11 General NSPS Requirements
40CFR60.12 General NSPS Requirements
40CFR60.13(a) General NSPS Requirements
40CFR60.13(b) General NSPS Requirements
40CFR60.13(d)(2) General NSPS Requirements
40CFR60.13(e)(1) General NSPS Requirements
40CFR60.13(f) General NSPS Requirements
40CFR60.13(h) General NSPS Requirements
40CFR60.19 General NSPS Requirements
40CFR60.62(a) NSPS Requirement for Cement Kilns
40CFR60.62(b) NSPS Requirements for Cement Plant Coolers
40CFR60.63(a) NSPS Requirement for Cement Kilns
40CFR60.63(b) NSPS Requirement for Cement Kilns
40CFR60.63(d) NSPS Requirement for Cement Kilns
40CFR60.64 NSPS Requirement for Cement Kilns
40CFR60.65(a) NSPS Requirement for Cement Kilns
40CFR60.65(b) NSPS Requirements for Cement Plant Coolers
40CFR60.65(c) NSPS Requirements for Cement Plant Coolers
40CFR60.7 General NSPS Requirements
40CFR60.8 General NSPS Requirements
62-296.320(4)(a), F.A.C. Process Weight Table
62-296.407, F.A.C. Portland Cement Plants
62-296.507(4)(b)8, F.A.C. RACT Requirements for Major VOC and NOx Emitting Facilities

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Mineral Products: Cement Manufacturing: Dry Process: Raw Material Grinding and Drying	
2. Source Classification Code (SCC): <p style="text-align: center;">3-05-006-13</p>	
3. SCC Units: <p style="text-align: center;">Raw Feed Produced</p>	
4. Maximum Hourly Rate: <p style="text-align: center;">316</p>	5. Maximum Annual Rate: <p style="text-align: center;">2,070,800</p>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <p style="text-align: center;">Segment refers to raw feed produced from raw mill (315.6 TPH, rounded to 316). Annual Raw Feed = 1,240,000 TPY clinker x 1.67 tons RF/ton clinker = 2,070,800 TPY</p>	

Segment Description and Rate: Segment 2 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Mineral Products: Cement manufacturing: Dry process: Kilns	
2. Source Classification Code (SCC): 3-05-006-06	
3. SCC Units: Tons Cement Produced	
4. Maximum Hourly Rate: 160	5. Maximum Annual Rate: 1,240,000
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): Segment refers to clinker production.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
 (Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Mineral Products; Cement manufacturing: dry Process: Clinker Cooler	
2. Source Classification Code (SCC): <p style="text-align: center;">3-05-006-14</p>	
3. SCC Units: <p style="text-align: center;">Tons Cement produced</p>	
4. Maximum Hourly Rate: <p style="text-align: center;">160</p>	5. Maximum Annual Rate: <p style="text-align: center;">1,240,000</p>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <p style="text-align: center;">Segment refers to clinker through clinker cooler.</p>	

Segment Description and Rate: Segment 4 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): In-process fuel use; Industrial Processes; Cement Kiln/Dryer (Bituminous Coal)	
2. Source Classification Code (SCC): 3-90-002-01	
3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 23	5. Maximum Annual Rate: 176,080
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 3.5	8. Maximum Percent Ash: 20
9. Million Btu per SCC Unit: 25	
10. Segment Comment (limit to 200 characters): Max hourly rate = 22.72 (rounded to 23). Maximum annual rate based on 1,240,000 TPY clinker x 3.55 MMBtu/ton clinker ÷ 12,500 Btu/lb x ton/2000 lbs = 176,080 TPY.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 5 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): In-process Fuel use; Industrial processes; General Coke	
2. Source Classification Code (SCC): 3-90-008-99	
3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 20	5. Maximum Annual Rate: 157,214
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 5.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 28	
10. Segment Comment (limit to 200 characters): Max hourly rate 20.29 TPH (rounded to 20). Max Annual Rate = 1,240,000 TPY clinker x 3.55 MMBtu/ton ÷ 14,000 Btu/lb x ton/2000 lbs = 157,214 TPY.	

Segment Description and Rate: Segment 6 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): In-process fuel use; Industrial processes; Cement Kiln/Dryer No.2 Fuel Oil with used oil blend	
2. Source Classification Code (SCC): 3-90-005-02	
3. SCC Units: 1,000 Gallons Burned	
4. Maximum Hourly Rate: 4.092	5. Maximum Annual Rate: 31,715
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 139	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit = 138.8 (rounded to 139). Max Annual Rate = 1,240,000 TPY clinker x 3.55 MMBtu/ton ÷ 138,800 Btu/gal = 31,714,697 gal/yr.	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 7 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): In-process fuel use; Industrial processes; Cement Kiln/Dryer No.6 Fuel Oil with used oil blend	
2. Source Classification Code (SCC): 39000402	
3. SCC Units: 1,000 Gallons Burned	
4. Maximum Hourly Rate: 3.737	5. Maximum Annual Rate: 28,961
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 152	
10. Segment Comment (limit to 200 characters): Max Annual Rate = 1,240,000 TPY clinker x 3.55 MMBtu/ton ÷ 152,000 Btu/gal = 28,960,525 gal/yr.	

Segment Description and Rate: Segment 8 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): In-process fuel use; Industrial processes; Cement Kiln/Dryer; natural gas	
2. Source Classification Code (SCC): 39000602	
3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 0.568	5. Maximum Annual Rate: 4,402
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,000	
10. Segment Comment (limit to 200 characters): Max Annual Rate = 1,240,000 TPY clinker x 3.55 MMBtu/ton ÷ 1,000 Btu/scf = 4,402 MMscf/yr.	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO2	016		EL
PM	016		EL
PM10	016		NS
H106			NS
NOx			EL
CO			NS
VOC			NS
SAM			NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: SO2		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	320 lb/hour	806 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		1.3 lb/ton clinker
Reference: Vendor Information		
7. Emissions Method Code: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): 24-hour: 2.0 lb/ton clinker x 160 ton clinker/hour = 320 lb/hr; Annual Average: 1,240,000 tons clinker/yr x 1.3 lb/ton clinker x 1 ton/2000 lb = 806 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 		

Emissions Unit Information Section 2 _____ of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 0.8 lb/MMBtu		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 6 Stack Testing		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on Rule 24-17, Dade County Code - for liquid fuel firing.		

B.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 1.2 lb/MMBtu		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 6 Stack Testing		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on Rule 24-17, Dade County Code - for solid fuel firing.		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: NOx		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	720 lb/hour	1,953 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		3.15 lb/ton clinker
Reference: Vendor Information		
7. Emissions Method Code: <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): 24-hour: 4.5 lb/ton clinker x 160 tons clinker/hr = 720 lb/hr; Annual Average: 3.15 lb/ton clinker x 1,240,000 tons clinker/yr x 1 ton/2000 lb = 1,953 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 		

Emissions Unit Information Section 2 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 2 lb/MMBtu		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters): Annual EPA Method 7 or 7E		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Emission limit is based on RACT, Rule 62-296.570(4)(b)8., F.A.C.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: CO		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	576 lb/hour	1,457 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[] 1 [] 2 [] 3 _____ to _____ tons/yr		
6. Emission Factor:		2.35 lb/ton clinker
Reference: Vendor Information		
7. Emissions Method Code:		
[] 0 [] 1 <input checked="" type="checkbox"/> 2 [] 3 [] 4 [] 5		
8. Calculation of Emissions (limit to 600 characters):		
24-hour: 3.6 lb/ton clinker x 160 TPH = 576 lb/hr; Annual Average: 2.35 lb/ton clinker x 1,240,000 TPY ÷ 2,000 lb/ton = 1,457.0 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		

Emissions Unit Information Section 2 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**Pollutant Detail Information:**

1. Pollutant Emitted: VOC		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	40 lb/hour	155 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/yr		
6. Emission Factor:		0.25 lb/ton clinker
Reference: Tarmac Estimate		
7. Emissions Method Code: [] 0 [] 1 <input checked="" type="checkbox"/> 2 [] 3 [] 4 [] 5		
8. Calculation of Emissions (limit to 600 characters): 0.25 lb/ton clinker x 160 TPH = 40 lb/hr; 0.25 lb/ton clinker x 1,240,000 TPY ÷ 2000 lb/ton = 155.0 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 		

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Mineral Products; Cement Manufacturing Dry Process; Cement storage silos	
2. Source Classification Code (SCC): <p style="text-align: center;">3-05-006-18</p>	
3. SCC Units: <p style="text-align: center;">tons cement produced</p>	
4. Maximum Hourly Rate: <p style="text-align: center;">500</p>	5. Maximum Annual Rate: <p style="text-align: center;">1,614,400</p>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <p style="text-align: center;">Hourly rate refers to combined rate to all cement silos as stated in permit AC13-21098 & PSD-FL-236. Annual rate reflects total cement production of 1,314,400 TPY from clinker & 300,000 TPY from slag</p>	

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Mineral Products; Cement Manufacturing Dry Process; Cement Loadout	
2. Source Classification Code (SCC): 3-05-006-19	
3. SCC Units: Tons cement produced	
4. Maximum Hourly Rate: 500	5. Maximum Annual Rate: 1,614,400
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): Hourly rate refers to combined rate to all cement Loadout units as stated in AC13-21098 & PSD-FL-236. Annual rate reflects total cement production of 1,314,400 TPY from clinker & 300,000 TPY from slag	

REVISED EMISSION UNIT ATTACHMENTS

Table TA-E01-H9. Emission Point Detail Information for Coal Handling System, Emission Unit 01, Tarmac America, Pennsuco

Source	Grain Loading	Flowrate	Potential PM Emissions		Potential PM10 Emissions	
	(gr/dscf)	(acfm)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
Batch Drop Operations - Coal/Petcoke Storage Piles (a)	NA	NA	0.28	0.29	0.096	0.10
Vehicular Traffic - Front End Loader Transfer (b)	NA	NA	24.47	25.45	8.57	8.91
Coal Feed Bin Baghouse	0.01	3,000	0.26	1.13	0.26	1.13
Pet Coke Feed Bin Baghouse	0.01	3,000	0.26	1.13	0.26	1.13
Coal Mill Baghouse	0.01	<u>25,700</u>	<u>2.20</u>	<u>9.65</u>	<u>2.20</u>	<u>9.65</u>
Total		31,700	27.47	37.64	11.38	20.91

(a) Refer to Appendix B, Table B-2.

(b) Refer to Appendix B, Table B-4.

Table TA-E03-C5. Individual Maximum Process Rates for Finish Mills, Emission Unit 03, Tarmac America, Pennsuco.

Source Description	Number of Baghouses	Maximum Operating Hours (hr/yr)	Throughput Maximum	
			(TPH)	(TPY)
Finish Mill #1: baghouses	2	8,760	25	219,000
Finish Mill #2: baghouses	2	8,760	25	219,000
Finish Mill #3: baghouses	3	8,760	83.5	731,460
Finish Mill #4: baghouses	5	8,760	125	1,095,000
Finish Mill #5: baghouses	<u>5</u>	8,760	<u>120</u>	<u>1,051,200</u>
TOTALS	17		378.5	1,614,400 (a)

(a) Represents total cement production consisting of 1,314,400 TPY based on maximum clinker production of 1,240,000 TPY, plus 300,000 TPY of slag.

Table TA-E04-C5. Individual Maximum Process Rates for Clinker Handling/Storage Emission Unit 04, Tarmac America, Pennsuco.

Source Description	Number of Baghouses	Maximum Operating Hours (hr/yr)	Throughput Maximum (TPH)	Throughput Maximum (TPY)	
CHS 1-4	7	8,760	160	1,240,000	Limited by Clinker Production Rate
Slag Dryer Transfer	NA	3,120	<u>125</u>	<u>300,000</u>	Limited by Slag Dryer operation
Total			285	1,540,000	
Clinker Silos 1, 2, 4, 5, 11, 12, 17, 18, 19, 20	6	8,760	160	1,240,000	
Clinker Silos 21-23,26-28	1	8,760	160	1,540,000	

CHS = Clinker Handling System

Table TA-E05-C5. Individual Maximum Process Rates for Cement Storage/Loadout Emission Unit 05, Tarmac America, Pennsuco.

Source	Maximum Operating Hours (hr/yr)	Maximum Process Rate	
		(TPH)	(TPY) (a)
Cement Silos 1-6	8,760	500	1,614,400
Cement Silos 7-9	8,760	125	1,095,000
Cement Silo 10-12	8,760	500	1,614,400
Bulk Loadout Unit 1	8,760	250	1,614,400
Bulk Loadout Unit 2	8,760	250	1,614,400
Bulk Loadout Unit 3	8,760	500	1,614,400
Packhouse	8,760	85	744,600

(a) Represents hourly process rate times 8,760 hr/yr, or 1,614,400 TPY total cement production, whichever is less.

Notes:

Process rate limit for all silo's combined is 500 TPH

Process rate limit for all loadout unit's combined is 500 TPH

REVISIONS TO ATTACHMENT A

Table 2-1. Maximum Fuel Usage and Heat Input Rates, Tarmac Florida Cement Plant

Fuel	Maximum Heat Input (a) (MMBtu/hr)	Maximum Operating Hours (hr/yr)	Fuel Firing Rate	
			Maximum Hourly (b)	Maximum Annual Average (c)
Coal	568	8,760	22.72 tons/hr	176,080 TPY
Petroleum coke	568	8,760	20.29 tons/hr	157,214 TPY
No. 6 Fuel Oil	568	8,760	3,737 gal/hr	28,960,525 gal/yr
Natural gas	568	8,760	568,000 scf/hr	4,402 MMscf/yr
No. 2 Fuel Oil	568	8,760	4,092 gal/hr	31,714,697 gal/yr

(a) Represents 228 MMBtu/hr heat input to Kiln, 252 MMBtu/hr heat input to Calciner, and 88 MMBtu/hr to Raw Mill.

(b) Based on 160 TPH clinker production.

(c) Based on 1,240,000 TPY clinker production.

Notes:

Fuels may be burned in combination, not to exceed total heat input.

Based on fuel heating values as follows:

Coal - 12,500 Btu/lb

Petroleum coke - 14,000 Btu/lb

No. 2 Fuel Oil - 138,800 Btu/gal

Natural gas - 1,000 Btu/scf

No. 6 Fuel Oil - 152,000 Btu/gal

Table 2-2. Maximum Annual Emissions From New Raw Mill/Preheater/Calciner/Kiln System, Tarmac Pennsuco

Pollutant	Emission Factor (a)	Reference	Activity Factor (a)	Maximum Annual Emissions (tons/yr)
Particulate Matter (TSP)	0.33 lb/ton clinker	1	1,240,000 TPY clinker	204.60
Particulate Matter (PM10)	85 % of PM	2	--	173.91
Sulfur dioxide	1.30 lb/ton clinker	1	1,240,000 TPY clinker	806.00
Nitrogen Oxides	3.15 lb/ton clinker	1	1,240,000 TPY clinker	1,953.00
Carbon monoxide	2.35 lb/ton clinker	1	1,240,000 TPY clinker	1,457.00
Volatile Organic Compounds	0.25 lb/ton clinker	3	1,240,000 TPY clinker	155.00
Sulfuric acid mist	0.014 lb/ton clinker	1	1,240,000 TPY clinker	8.68
Lead	7.50E-05 lb/ton clinker	1	1,240,000 TPY clinker	0.047
Mercury	2.40E-05 lb/ton clinker	1	1,240,000 TPY clinker	0.015

(a) Annual average emission factor, except for PM(TSP).

References:

1. Based on vendor design information.
2. From AP-42, for kiln with baghouse control, Section
3. Tarmac estimate.

Table 2-3. Estimated Potential Emissions of HAPs from New Cement Plant, Tarmac Pennsuco

Hazardous Air Pollutant	Emission Factor (lb/ton of clinker)	Ref.	Maximum Clinker Production (c) (TPY)	Potential Emissions (TPY)
<u>Inorganics/Metals</u>				
Antimony	1.00E-05	1	1,240,000	0.0062
Arsenic	1.3E-05	2	1,240,000	0.0081
Beryllium	6.6E-07	2	1,240,000	0.0004
Cadmium	8.3E-06	2	1,240,000	0.0051
Chromium	7.7E-06	2	1,240,000	0.0048
Hydrogen Chloride	4.9E-02	2	1,240,000	30.3800
Lead	7.1E-04	2	1,240,000	0.4402
Manganese	8.6E-04	2	1,240,000	0.5332
Mercury	2.2E-04	2	1,240,000	0.1364
Nickel	--	1	1,240,000	--
Selenium	1.5E-04	2	1,240,000	0.0930
<u>Organics</u>				
Benzene	3.1E-03	2	1,240,000	1.9220
Biphenyl	6.1E-06	2	1,240,000	0.0038
Bis(2-ethylhexyl)phthalate	9.5E-05	2	1,240,000	0.0589
Bromomethane	4.3E-05	2	1,240,000	0.0267
Carbon disulfide	1.1E-04	2	1,240,000	0.0682
Chlorobenzene	1.6E-05	2	1,240,000	0.0099
Chloromethane	3.8E-04	2	1,240,000	0.2356
Chloroform	2.66E-04	1	1,240,000	0.1649
Dibenzofuran	9.64E-04	1	1,240,000	0.5977
Di-n-Butyl-Phthlate	4.1E-05	2	1,240,000	0.0254
1,4 Dichlorobenzene	1.63E-05	1	1,240,000	0.0101
Dioxins/Furans	2.3E-09	3	1,240,000	1.43E-06
Ethylbenzene	1.9E-05	2	1,240,000	0.0118
Formaldehyde	4.6E-04	2	1,240,000	0.2852
Methyl ethyl ketone	3.0E-05	2	1,240,000	0.0186
Methylene Chloride	4.9E-04	2	1,240,000	0.3038
Nitrobenzene	2.68E-05	1	1,240,000	0.0166
Napthalene	1.7E-03	2	1,240,000	1.0540
4-Nitrophenol	9.20E-05	1	1,240,000	0.0570
Phenol	1.1E-04	2	1,240,000	0.0682
Styrene	1.5E-06	2	1,240,000	0.0009
Toulene	1.9E-04	2	1,240,000	0.1178
2,4,6-Trichlorophenol	1.06E-04	1	1,240,000	0.0657
Xylene	1.3E-04	2	1,240,000	<u>0.0806</u>
TOTAL HAPs				36.81

(1) Based on maximum individual test run from testing of Kiln No. 3 in August and December 1992.

(2) Based on AP-42 factor.

(3) Proposed MACT limit, 40 CFR 63, Subpart LLL.

Table 3-4. Future Maximum Annual Emissions From Material Handling Point Sources, Tarmac Pennsuco

Emission Unit	Emission Source	Point ID	Baghouse ID	Emission Basis	Emission Factor	Activity Factor (a)	Future PM/PM10 Emissions		
							Individual Source Total (tons/yr)	Emission Unit Total (tons/yr)	
001	Coal Handling/Coal Mill System	003	3 baghouses	0.01 gr/acf; 31,700 acfm	2.72 lb/hr	8,760 hr/yr	<u>11.90</u>	11.90	
004	Clinker Handling/Stg - Silos 1, 2, 4, 5, 11 and 12	008	K-147, K-247 (b)	0.01 gr/acf; 3,000 acfm	0.26 lb/hr	8,760 hr/yr	1.13		
004	Clinker Handling/Stg - Silos 1, 4, 11, 17-23, 26-28	009	K-347, K-447, K-521, K-522, K-633 (c)	0.01 gr/acf; 9,500 acfm	0.81 lb/hr	8,760 hr/yr	<u>3.57</u>	4.69	
003	Finish Mill No. 1	010	F-130, F-113	0.01 gr/acf; 23,800 acfm	2.04 lb/hr	8,760 hr/yr	8.94		
003	Finish Mill No. 2	011	F-230, F-213	0.01 gr/acf; 23,800 acfm	2.04 lb/hr	8,760 hr/yr	8.94		
003	Finish Mill No. 3	012	F-313, F-330, F-332	0.01 gr/acf; 41,500 acfm	3.56 lb/hr	8,760 hr/yr	15.58		
003	Finish Mill No. 4	013	F-430, F-432, F-603, F-604, F-605	0.01 gr/acf; 67,000 acfm	5.74 lb/hr	8,760 hr/yr	25.15		
003	Finish Mill No. 5	--	5 baghouses	0.01 gr/acf; 64,320 acfm	5.51 lb/hr	8,760 hr/yr	<u>24.15</u>	82.75	
005	Cement Silos #1-#12	014	F-511, F-512, F-513, F-514, F-515	0.01 gr/acf; 43,000 acfm	3.69 lb/hr	8,760 hr/yr	16.14		
005	Cement Distribution-Rail/Truck	015	B-110, B-210, B-372, B-374, B-382	0.01 gr/acf; 15,000 acfm	1.29 lb/hr	8,760 hr/yr	5.63		
005	Cement Distribution-Packhouse	016	B-621	0.01 gr/acf; 12,000 acfm	1.03 lb/hr	8,760 hr/yr	<u>4.51</u>	26.28	
TOTAL								<u>125.6</u>	125.6

(a) Based on continuous operation of all sources.

(b) Only one baghouse operates at any one time.

(c) K-347 and K-447 do not operate at the same time.

Table 3-6. Summary of Quantifiable Fugitive Emissions, Tarmac America

Source	Estimated Annual Emissions (TPY)		Estimated Hourly Emissions (lb/hr) (a)	
	PM	PM10	PM	PM10
<u>PSD Baseline Emissions</u>				
Coal Handling Facilities-Batch Drop	0.28	0.10	0.27	0.09
Raw Materials Blending-Batch Drop	3.52	1.23	3.39	1.19
Insufflation Area-Batch Drop	0.22	0.08	0.21	0.07
Coal Handling Facilities-Vehicular Traffic	23.97	8.39	23.05	8.07
Raw Materials Blending-Vehicular Traffic	14.34	5.02	13.79	4.83
Insufflation Area-Vehicular Traffic	<u>1.63</u>	<u>0.57</u>	<u>1.57</u>	<u>0.55</u>
Total	43.96	15.39	42.27	14.79
<u>Future Potential Emissions</u>				
Coal Handling Facilities-Batch Drop	0.29	0.10	0.28	0.10
Coal Handling Facilities-Vehicular Traffic	<u>25.45</u>	<u>8.91</u>	<u>24.47</u>	<u>8.56</u>
Total	25.74	9.01	24.75	8.66

Notes:

(a) Based on average hourly emissions assuming 2,080 hr/yr actual operation.

Table 3-7. Net Change in Emissions and PSD Significant Emission Rates, Tarmac Cement Plant Modification

Pollutant	PSD Baseline Emissions						Future Potential Emissions					Net Increase In Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Review Applies?
			Material Handling Point Sources	Slag Dryer	Material Handling Fugitive Sources	Total	New Raw Mill Preheater/ Calciner/Kiln/ Cooler	Material Handling Point Sources	Slag Dryer	Material Handling Fugitive Sources	Total			
	Kiln No. 2	Kiln No. 3												
Particulate Matter [PM(TSP)]	33.15	112.01	167.87	9.12	43.96	366.11	204.60	125.63	9.12	25.74	365.09	-1.02	25	No
Particulate Matter (PM10)	28.18	95.21	167.87	9.12	15.39	315.76	173.91	125.63	9.12	9.01	317.67	1.90	15	No
Sulfur Dioxide	14.38	1,399.76	--	18.19	--	1,432.33	806.00	--	18.19	--	824.19	-608.14	40	No
Nitrogen Dioxide	435.09	1,836.06	--	12.81	--	2,283.95	1,953.00	--	12.81	--	1,965.81	-318.14	40	No
Carbon Monoxide	52.65	1,312.25	--	3.20	--	1,368.10	1,457.00	--	3.20	--	1,460.20	92.10	100	No
Volatile Organic Compounds	7.03	123.13	--	0.34	--	130.50	155.00	--	0.34	--	155.34	24.84	40	No
Sulfuric Acid Mist	0.61	256.58	--	0.078	--	257.27	8.68	--	0.078	--	8.76	-248.51	7	No
Lead	0.00757	0.03096	--	0.00080	--	0.0393	0.04650	--	0.00080	--	0.0473	0.008	0.6	No
Mercury	0.00458	0.01875	--	0.00027	--	0.0236	0.01488	--	0.00027	--	0.0151	-0.00845035	0.1	No

NEG = Negligible.

REVISED APPENDIX B TABLES

Table B-1. Estimated Baseline Fugitive Dust Emissions from Drop Type Operations, Tarmac America, Pennsuco.

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Emission Factor	Activity Factor (b)	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
<u>COAL HANDLING FACILITIES</u>								
Railcar Unloading	Batch Drop	7.2	8.8	0.00111 lbs/ton	165,841 TPY	0.092	0.35	0.032
Temporary Storage Pile to Active Storage Pile	Batch Drop	7.2	8.8	0.00111 lbs/ton	165,841 TPY	0.092	0.35	0.032
Active Storage Pile to Loading Hopper	Batch Drop	7.2	8.8	0.00111 lbs/ton	165,841 TPY	<u>0.092</u>	0.35	<u>0.032</u>
					Subtotal	0.28		0.10
<u>RAW MATERIALS BLENDING AREA</u>								
Raw Material unloading	Batch Drop	1.0	8.8	0.01761 lbs/ton	200,000 TPY	1.7610	0.35	0.616
Raw Materials Pile to Blending Location	Batch Drop	1.0	8.8	0.01761 lbs/ton	200,000 TPY	<u>1.7610</u>	0.35	<u>0.616</u>
					Subtotal	3.52		1.23
<u>INSUFFLATION AREA</u>								
Truck Loading	Batch Drop	1.0	8.8	0.01761 lbs/ton	12,500 TPY	0.1101	0.35	0.039
Truck Unloading	Batch Drop	1.0	8.8	0.01761 lbs/ton	12,500 TPY	<u>0.1101</u>	0.35	<u>0.039</u>
					Subtotal	0.2201		0.08
TOTAL					Grand Total	4.02		1.41

Notes:(a) Batch Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Based on average two year period, 1996-1997.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

Table B-2. Estimated Future Maximum Fugitive Dust Emissions from Drop Type Operations, Tarmac America, Pennsuco.

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Emission Factor	Activity Factor (b)	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
COAL HANDLING FACILITIES								
Railcar Unloading	Batch Drop	7.2	8.8	0.00111 lbs/ton	176,080 TPY	0.098	0.35	0.034
Temporary Storage Pile to Active Storage Pile	Batch Drop	7.2	8.8	0.00111 lbs/ton	176,080 TPY	0.098	0.35	0.034
Active Storage Pile to Loading Hopper	Batch Drop	7.2	8.8	0.00111 lbs/ton	176,080 TPY	0.098	0.35	0.034
TOTAL						0.29		0.10

Notes:

- (a) Batch Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton
- (b) Based on future coal throughput.
- (c) PM10 Size Multiplier is based on particles < 10 micrometers.

**Table B-3. Estimation of Baseline Emissions For Vehicle Traffic in the Coal Handling System
Tarmac America, Pennsuco Facility.**

General Data	Front End Loader (loaded)	Front End Loader (unloaded)	Total
Vehicle Data			
Description	Coal	Coal	
Vehicle Speed (S), mph- Average	10	10	
Vehicle weight (W), tons:			
Loaded	55.5	--	
Unloaded	--	47.5	
Vehicle number of wheels (w)	4	4	
Vehicle miles traveled (VMT)- Annual (a)	2,483	2,483	
General/ Site Characteristics			
Days of precipitation > or = 0.01 inch (p) Annually	120	120	
Silt content (s), % (b)	12	12	
Particle size multiplier, PM (k)	1.00	1.00	
Particle size multiplier, PM10 (k)	0.35	0.35	
Emission Control Data			
Emission control method	--	--	
Emission control removal efficiency, %	0	0	
Calculated PM Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	10.18	9.13	
Controlled (Final) EF, lb/VMT- Annual	10.18	9.13	
Calculated PM10 Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	3.56	3.19	
Controlled (Final) EF, lb/VMT- Annual	3.56	3.19	
Estimated Emission Rate (ER)			
Particulate Matter (PM) Emission Rate			
lbs/hr (c)	12.15	10.90	23.05
TPY	12.64	11.33	23.97
Particulate Matter 10 (PM10) Emission Rate			
lbs/hr (c)	4.25	3.81	8.07
TPY	4.42	3.97	8.39

Emission Factor (EF) Equations

Uncontrolled EF (UEF) Equation:

$$UEF(\text{lb/VMT}) = k \times 5.9 \times (s/12) \times (S/30) \times (W/3)^{0.7} \times (w/4)^{0.5} \times ((365 - p)/365)$$

Controlled (Final) EF (CEF) Equation:

$$CEF(\text{lb/VMT}) = UEF (\text{lb/ton}) \times (100 - \text{Removal efficiency} (\%))$$

Source: AP-42, Section 13.2.2, Unpaved Roads, January, 1995.

- (a) Based on 165,841 TPY (average of 1996-1997 coal throughput) of coal transported 550 ft, empty half the time, full the remaining time.
Annual mileage increased by 15 % to account for additional travel due to pile maintenance activities.
- (b) Tarmac Information.
- (c) Assumes 2,080 hr/yr operation.

**Table B-4. Estimation of Future Emissions For Vehicle Traffic in the Coal Handling System
Tarmac America, Pennsuco Facility.**

General Data	Front End Loader (loaded)	Front End Loader (unloaded)	Total
Vehicle Data			
Description	Coal	Coal	
Vehicle Speed (S), mph- Average	10	10	
Vehicle weight (W), tons:			
Loaded	55.5	--	
Unloaded	--	47.5	
Vehicle number of wheels (w)	4	4	
Vehicle miles traveled (VMT)- Annual (a)	2,637	2,637	
General/ Site Characteristics			
Days of precipitation > or = 0.01 inch (p) Annually	120	120	
Silt content (s), % (b)	12	12	
Particle size multiplier, PM (k)	1.00	1.00	
Particle size multiplier, PM10 (k)	0.35	0.35	
Emission Control Data			
Emission control method	--	--	
Emission control removal efficiency, %	0	0	
Calculated PM Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	10.18	9.13	19.30
Controlled (Final) EF, lb/VMT- Annual	10.18	9.13	19.30
Calculated PM10 Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	3.56	3.19	6.76
Controlled (Final) EF, lb/VMT- Annual	3.56	3.19	6.76
Estimated Emission Rate (ER)			
Particulate Matter (PM) Emission Rate			
lbs/hr (c)	12.90	11.57	24.47
TPY	13.42	12.03	25.45
Particulate Matter 10 (PM10) Emission Rate			
lbs/hr (c)	4.52	4.05	8.57
TPY	4.70	4.21	8.91

Emission Factor (EF) Equations

Uncontrolled EF (UEF) Equation:

$$UEF(\text{lb/VMT}) = k \times 5.9 \times (s/12) \times (S/30) \times (W/3)^{0.7} \times (w/4)^{0.5} \times ((365 - p)/365)$$

Controlled (Final) EF (CEF) Equation:

$$CEF(\text{lb/VMT}) = UEF (\text{lb/ton}) \times (100 - \text{Removal efficiency} (\%))$$

Source: AP-42, Section 13.2.2, Unpaved Roads, January, 1995.

- (a) Based on 176,080 TPY (average of 1996-1997 coal throughput) of coal transported 550 ft, empty half the time, full the remaining time.
Annual mileage increased by 15 % to account for additional travel due to pile maintenance activities.
- (b) Tarmac Information.
- (c) Assumes 2,080 hr/yr operation.

**Table B-5. Estimation of Baseline Emissions For Vehicle Traffic in the Raw Material Blending Area
Tarmac Amerlca, Pennsuco Facility.**

General Data	Front End Loader (loaded)	Front End Loader (unloaded)	Total
Vehicle Data			
Description	Dry Feed	Dry Feed	
Vehicle Speed (S), mph- Average	5	5	
Vehicle weight (W), tons:			
Loaded	50	--	
Unloaded	--	40	
Vehicle number of wheels (w)	4	4	
Vehicle miles traveled (VMT)- Annual (a)	3,267	3,267	
General/ Site Characteristics			
Days of precipitation > or = 0.01 inch (p) Annually	120	120	
Silt content (s), % (b)	12	12	
Particle size multiplier, PM (k)	1.00	1.00	
Particle size multiplier, PM10 (k)	0.35	0.35	
Emission Control Data			
Emission control method	--	--	
Emission control removal efficiency, %	0	0	
Calculated PM Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	4.73	4.05	
Controlled (Final) EF, lb/VMT- Annual	4.73	4.05	
Calculated PM10 Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	1.66	1.42	
Controlled (Final) EF, lb/VMT- Annual	1.66	1.42	
Estimated Emission Rate (ER)			
Particulate Matter (PM) Emission Rate			
lbs/hr (c)	7.43	6.36	13.79
TPY	7.73	6.61	14.34
Particulate Matter 10 (PM10) Emission Rate			
lbs/hr (c)	2.60	2.22	4.82
TPY	2.70	2.31	5.02

Emission Factor (EF) Equations

Uncontrolled EF (UEF) Equation:

$$UEF(\text{lb/VMT}) = k \times 5.9 \times (s/12) \times (S/30) \times (W/3)^{0.7} \times (w/4)^{0.5} \times ((365 - p)/365)$$

Controlled (Final) EF (CEF) Equation:

$$CEF(\text{lb/VMT}) = UEF (\text{lb/ton}) \times (100 - \text{Removal efficiency} (\%))$$

Source: AP-42, Section 13.2.2, Unpaved Roads, January, 1995.

(a) Based on 200,000 TPY (1996-1997 average throughput) of Raw Materials transported 750 ft, empty half the time, full the remaining time.

Annual mileage increased by 15 % to account for additional travel due to pile maintenance activities.

(b) Tarmac Information.

(c) Assumes 2,080 hr/yr operation.

**Table B-6. Estimation of Baseline Emissions For Vehicle Traffic in the Insufflation Area
Tarmac America, Pennsuco Facility.**

General Data	Truck (loaded)	Truck (unloaded)	Total
Vehicle Data			
Description	Clinker Dust	Clinker Dust	
Vehicle Speed (S), mph- Average	3	3	
Vehicle weight (W), tons:			
Loaded	25.75	--	
Unloaded	--	13.75	
Vehicle number of wheels (w)	10	10	
Vehicle miles traveled (VMT)- Annual (a)	704	704	
General/ Site Characteristics			
Days of precipitation > or = 0.01 inch (p) Annually	120	120	
Silt content (s), % (b)	12	12	
Particle size multiplier, PM (k)	1.00	1.00	
Particle size multiplier, PM10 (k)	0.35	0.35	
Emission Control Data			
Emission control method	--	--	
Emission control removal efficiency, %	0	0	
Calculated PM Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	2.82	1.82	
Controlled (Final) EF, lb/VMT- Annual	2.82	1.82	
Calculated PM10 Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	0.99	0.64	
Controlled (Final) EF, lb/VMT- Annual	0.99	0.64	
Estimated Emission Rate (ER)			
Particulate Matter (PM) Emission Rate			
lbs/hr (c)	0.95	0.61	1.57
TPY	0.99	0.64	1.63
Particulate Matter 10 (PM10) Emission Rate			
lbs/hr (c)	0.33	0.22	0.55
TPY	0.35	0.22	0.57

Emission Factor (EF) Equations

Uncontrolled EF (UEF) Equation:

$$UEF(\text{lb/VMT}) = k \times 5.9 \times (s/12) \times (S/30) \times (W/3)^{0.7} \times (w/4)^{0.5} \times ((365 - p)/365)$$

Controlled (Final) EF (CEF) Equation:

$$CEF(\text{lb/VMT}) = UEF (\text{lb/ton}) \times (100 - \text{Removal efficiency} (\%))$$

Source: AP-42, Section 13.2.2, Unpaved Roads, January, 1995.

- (a) Based on 12,500 (1996-1997 average throughput) TPY of clinker dust transported 3,100 ft, empty half the time, full the remaining time.
Annual mileage increased by 15 % to account for additional travel due to pile maintenance activities.
- (b) Tarmac Information.
- (c) Assumes 2,080 hr/yr operation.

ADDITIONAL INFORMATION

-101-1 INTERCOMPANY USE



FULLER COMPANY • 2040 Avenue C • Bethlehem, Pennsylvania 18017-2188
 Telephone: 610-264-6011 • FAX: 610-264-6170
 Telex: 173189 FULLERCO CAQA • Cable: COLFULLER

TO M. R. Blower (1-14)

FROM

G. R. Roy

DATE 18 Feb. 98

COMPANY- Tarmac Inc.
 Pennsuco, Florida
 SUBJECT- 6-47018-180

Expected Operating Emission Levels

After review of the overall process, I have determined the operating emission levels that Fuller expects from this new kiln line. The basis for the emission figures are the analysis of the raw material and fuel samples that were tested at Fuller's laboratory. Note that the emission figures listed below are expected hourly averages under normal working conditions, and do not account for startup/heatup or shutdown/upset conditions that are normally dealt with separately in the permit. I would expect that if Tarmac uses this data for permits, they must place adequate reserves to cover these other situations.

NO_x

3.15 # NO_x/ST clinker based on 100% coal firing in the ILC calciner

SO_x

1.30 # SO₂/ST clinker based on coal firing and a maximum of 0.03% S as pyrite in the raw materials

CO

2.35 # CO/ST clinker based on coal firing and a maximum of 0.22% C in the raw materials

cc: O. L. Jepsen (2-9), S. W. Miller (2-7), C. Bech (2-7), J. B. Lewis (1-4)

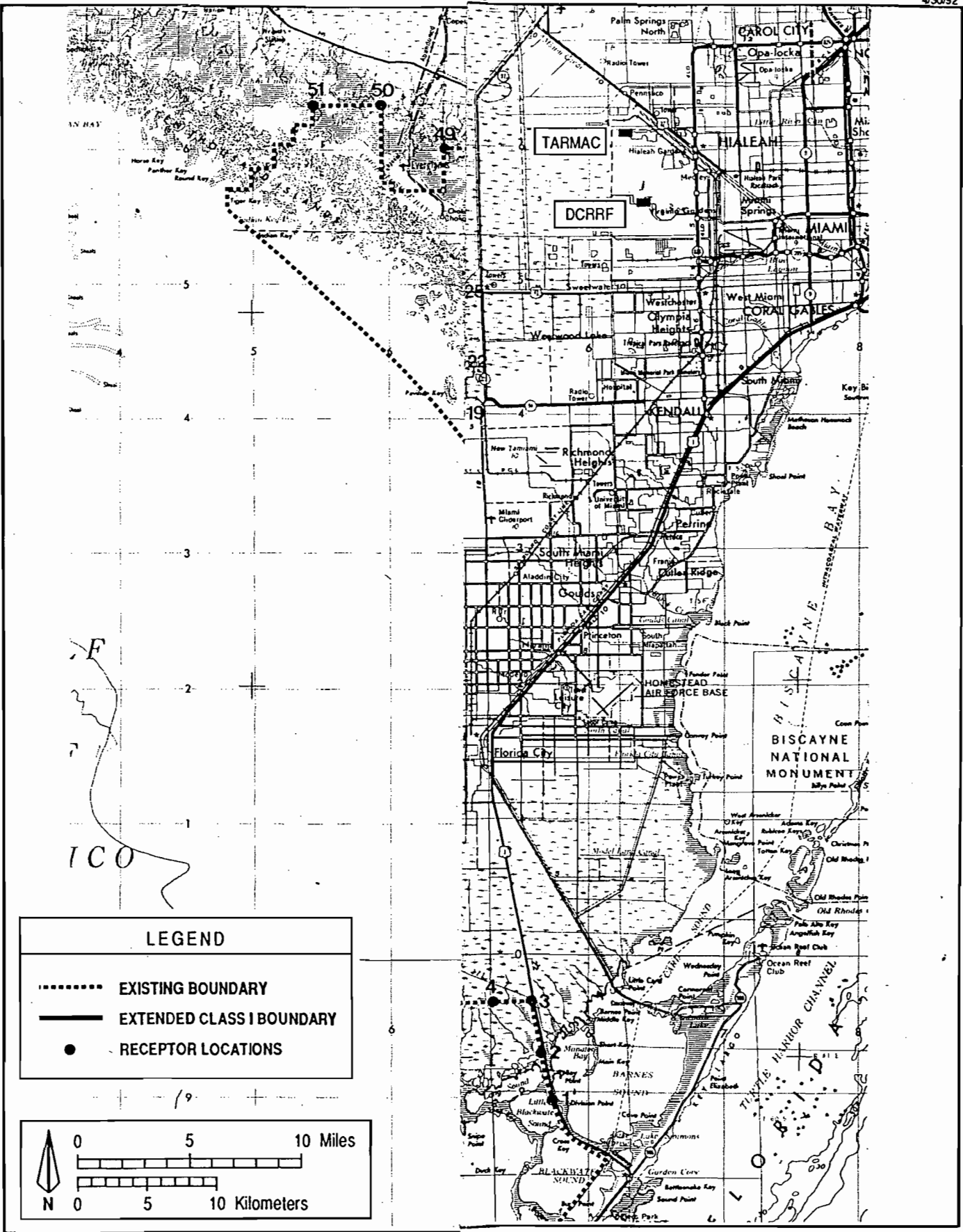


Figure 6-1 RECEPTOR LOCATIONS USED FOR PSD CLASS I SCREENING ANALYSIS

DADE COUNTY RESOURCES RECOVERY FACILITY CAPITAL EXPANSION PROJECT

Owner: Dade County
Operator: Montenay Power Corp.

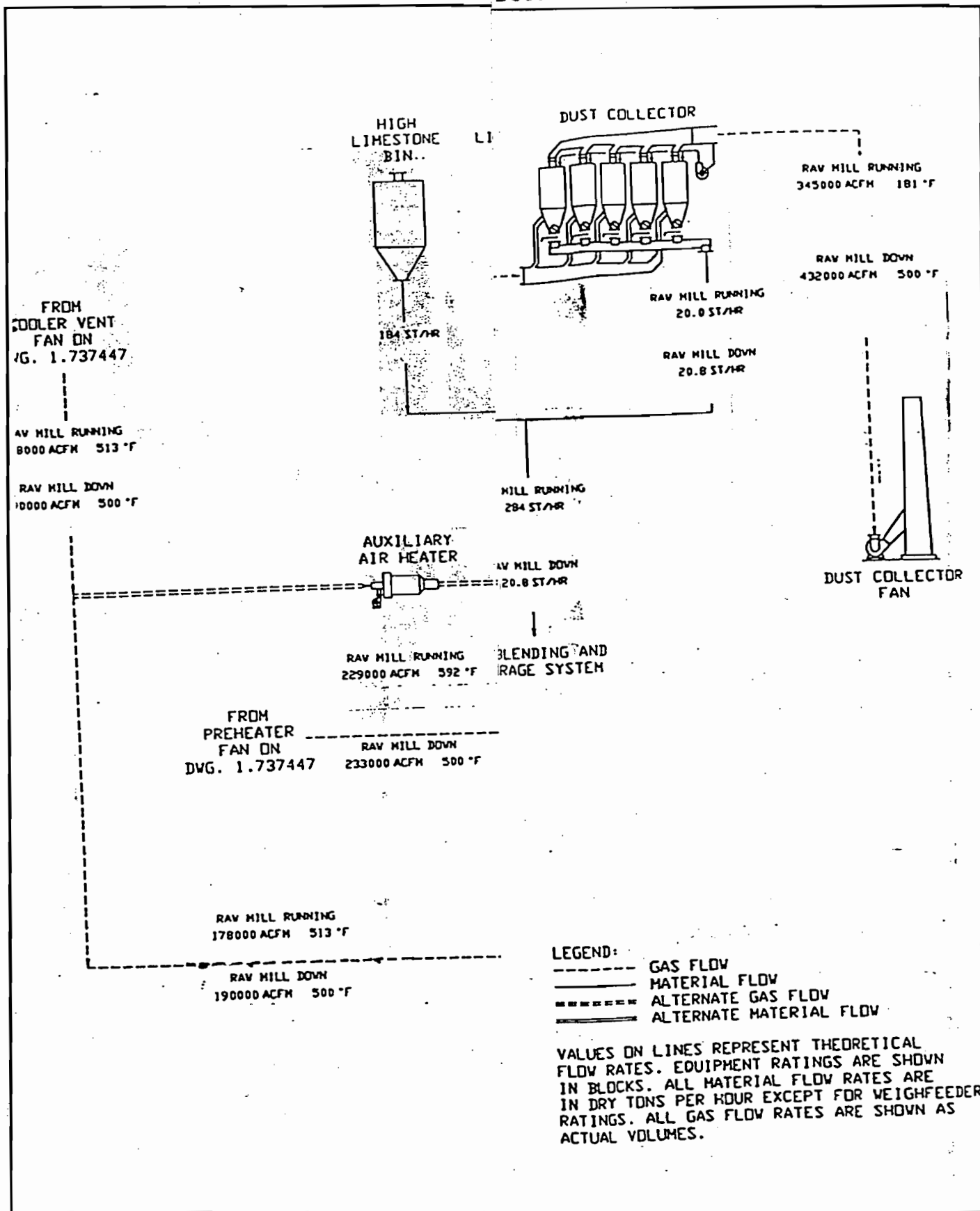


Figure 1
Fuller Process Flow Diagram A

10/08/98



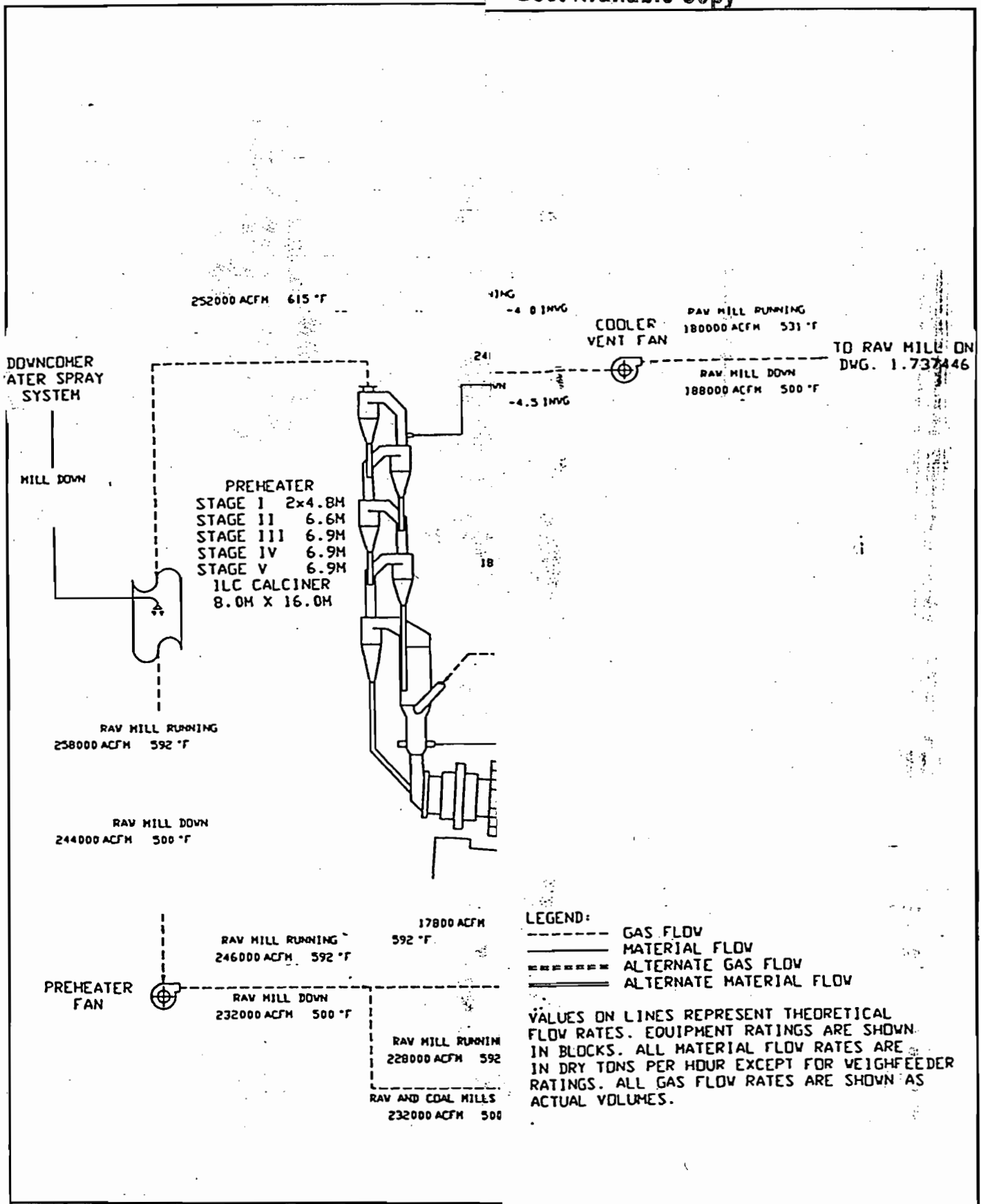
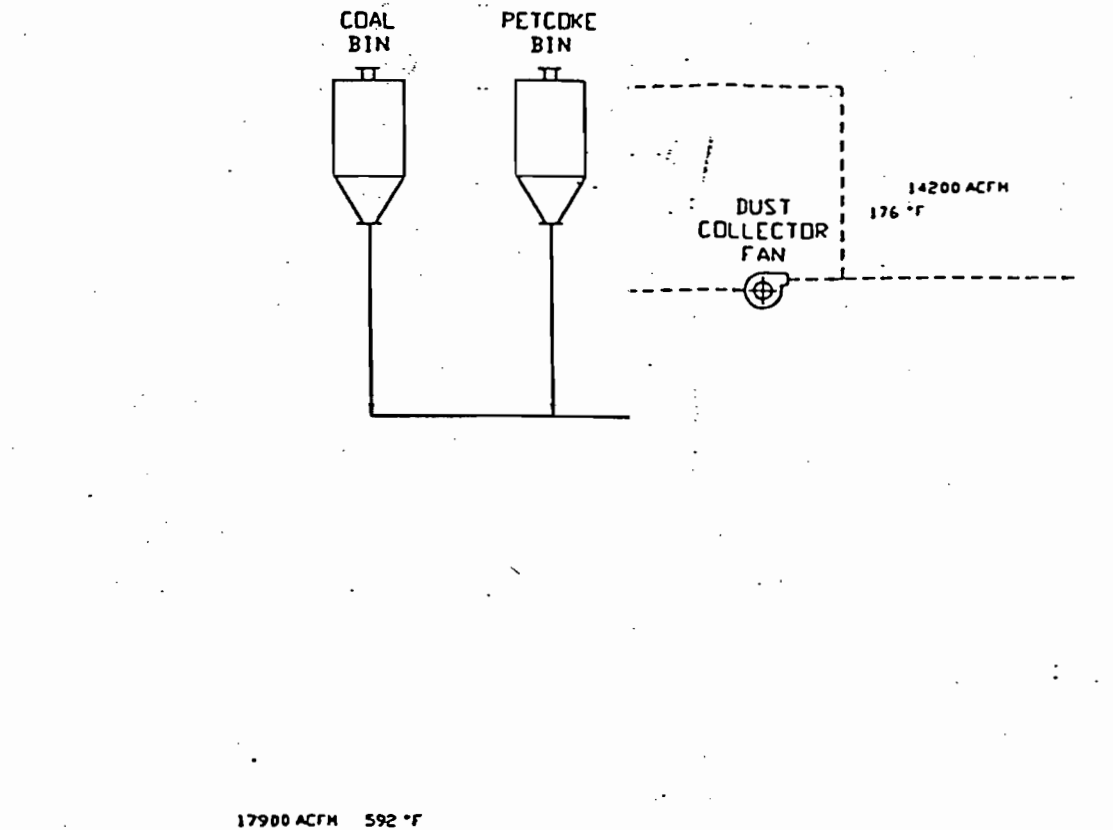


Figure 2
Fuller Process Flow Diagram B



FROM PREHEATER
FAN ON
DWG. 1.737447

LEGEND:
 - - - - - GAS FLOW
 _____ MATERIAL FLOW
 ===== ALTERNATE GAS FLOW
 ===== ALTERNATE MATERIAL FLOW

VALUES ON LINES REPRESENT THEORETICAL FLOW RATES. EQUIPMENT RATINGS ARE SHOWN IN BLOCKS. ALL MATERIAL FLOW RATES ARE IN DRY TONS PER HOUR EXCEPT FOR WEIGHFEEDER RATINGS. ALL GAS FLOW RATES ARE SHOWN AS ACTUAL VOLUMES.

Figure 3
Fuller Process Flow Diagram C

10/08/98

