INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: February 19, 2014

RE: Tate & Lyle Ingredients Americas, LLC / 157-33432-00033

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTV-PMOD.doc 6/13/2013

IDEM

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Ms. Susan Hayenga
Tate & Lyle Ingredients Americas, LLC
3300 US 52 South
Lafayette, IN 47905

February 19, 2014

Re: 157-33432-00033
Significant Permit Modification to
Part 70 No.: T157-6008-00033

Dear Ms. Hayenga:

Tate & Lyle Ingredients Americas, LLC was issued a Part 70 Operating Permit No. T157-6008-00033 on June 28, 2004 for a stationary corn wet milling source located at 3300 US 52 South, Lafayette, Indiana. An application to modify the source was received on May 6, 2011. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

For your convenience, the entire Part 70 Operating Permit as modified is attached.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Laura Spriggs, of my staff, at 317-233-5693 or 1-800-451-6027, and ask for extension 3-5693.

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit, Technical Support Document and Calculations

JA/lss

cc: File - Tippecanoe County
Tippecanoe County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Tate & Lyle, Lafayette South
3300 U.S. 52 South
Lafayette, Indiana 47905

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T157-6008-00033	
Issued by/Original signed by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: June 28, 2004 Expiration Date: June 28, 2009

Administrative Amendment No.: 157-20549-00033, issued March 10, 2005
Significant Permit Modification No.: 157-24984-00033, issued November 30, 2007

Significant Permit Modification No.: 157-33432-00033	
Issued by: Jenny Acker, Chief Permits Branch Office of Air Quality	Issuance Date: February 19, 2014

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY
A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]
A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

SECTION B GENERAL CONDITIONS
B.1 Definitions [326 IAC 2-7-1]
B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]
B.3 Term of Conditions [326 IAC 2-1.1-9.5]
B.4 Enforceability [326 IAC 2-7-7]
B.5 Severability [326 IAC 2-7-5(5)]
B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]
B.11 Emergency Provisions [326 IAC 2-7-16]
B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]
B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]
B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] [326 IAC 2-3-2]
B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

SECTION C SOURCE OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2 Opacity [326 IAC 5-1]
C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.5 Fugitive Dust Emissions [326 IAC 6-4]
C.6 Stack Height [326 IAC 1-7]
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

Testing Requirements [326 IAC 2-7-6(1)]
C.8 Performance Testing [326 IAC 3-6]

TABLE OF CONTENTS (Continued)

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
C.11 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]
C.12 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]
C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.11] [326 IAC 2-2]

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]
D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.1.4 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations
D.1.6 Parametric Monitoring
D.1.7 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.8 Record Keeping Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]
D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.2.3 Sulfur Dioxide Control

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.4 Monitoring for Scrubber
D.2.5 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

TABLE OF CONTENTS (Continued)

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.2.6 Record Keeping Requirements

SECTION D.3 FACILITY OPERATION

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.3.1 CO Emissions [326 IAC 2-2] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]
D.3.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]
D.3.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.3.4 Particulate Matter (Sources of Indirect Heating)[326 IAC 6-2-3(e)]
D.3.5 Sulfur Oxide [326 IAC 7-1.1-2] [326 IAC 7-2-1]
D.3.6 Volatile Organic Compounds - BACT [326 IAC 8-1-6]
D.3.7 Administrative Consent Order Requirements

Compliance Determination Requirements
D.3.8 Particulate, Sulfur Dioxide, VOC, and Carbon Monoxide Control
D.3.9 Sulfur Dioxide Emissions and Sulfur Content
D.3.10 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(3)(A)] [326 IAC 2-7-6]
D.3.11 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.3.12 Visible Emissions Notations
D.3.13 Cyclone Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.3.14 Scrubber Monitoring
D.3.15 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
D.3.16 Continuous Opacity Monitoring [326 IAC 3-5]
D.3.17 Opacity Readings
D.3.18 Method 9 Opacity Readings and Visible Emissions Notations
D.3.19 RTO Temperature [40 CFR 64]
D.3.20 Parametric Monitoring - RTO Duct Pressure or Fan Amperage

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.3.21 Record Keeping Requirements
D.3.22 Reporting Requirements

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.4.1 Prevention of Significant Deterioration [326 IAC 2-2]
D.4.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements
D.4.4 Particulate Control
D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.4.6 Visible Emissions Notations
D.4.7 Parametric Monitoring
D.4.8 Broken or Failed Bag Detection
D.4.9 Cyclone Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
D.4.10 Scrubber Monitoring
D.4.11 Scrubber Failure Malfunction

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.4.12 Record Keeping Requirements

SECTION D.5 FACILITY CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.5.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]
D.5.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.5.3 Sulfur Dioxide [326 IAC 7-1.1-2] [326 IAC 7-2-1]
D.5.4 VOC Emissions [326 IAC 8-1-6]
D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements
D.5.6 Particulate and Sulfur Dioxide Control
D.5.7 Sulfur Dioxide Emissions and Sulfur Content
D.5.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.5.9 Visible Emissions Notations
D.5.10 Parametric Monitoring
D.5.11 Broken or Failed Bag Detection
D.5.12 Scrubber Monitoring
D.5.13 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
D.5.14 Cyclone Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
D.5.15 Afterburner Temperature

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.5.16 Record Keeping Requirements
D.5.17 Reporting Requirements

SECTION D.6 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.6.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]
D.6.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements
D.6.4 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.6.5 Visible Emissions Notations
D.6.6 Parametric Monitoring
D.6.7 Broken or Failed Bag Detection
D.6.8 Rotoclone Failure Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.6.9 Record Keeping Requirements

SECTION D.7 FACILITY OPERATION CONDITIONS - Specifically Regulated Insignificant Activities

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.7.1 Particulate [326 IAC 6-3-2]

SECTION E.1 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart DDDDD

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to NESHAP, Subpart DDDDD [326 IAC 20-1] [40 CFR Part 63, Subpart A]

E.1.2 National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]

Certification
Emergency Occurrence Report
Semi-Annual Natural Gas Fired Boiler Certification
Part 70 Quarterly Report
Quarterly Deviation and Compliance Monitoring Report

Attachment A: 40 CFR 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary corn wet milling plant.

Source Address:	3300 U.S. 52 South, Lafayette, IN 47905
Mailing Address:	2200 E. Eldorado Street, Decatur, Illinois 62525
Source Phone Number:	(217) 421-2452
SIC Code:	2046
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 PSD Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices: (Note that the maximum process capacities of these units have been included in an OAQ file that is being treated as confidential until a determination has been made):

(a) Corn Receiving and Handling Area, consisting of:

(1) One (1) Corn Receiving (Corn Unloading Dust Collector), identified as Unit ID LA-1, constructed in 1977, with a baghouse for control, exhausting to stack 1.

(2) One (1) Corn Silo (Elevator Dust Collector), identified as Unit ID LA-2, constructed in 1977, with a baghouse for control, exhausting to stack 2.

(3) Twelve (12) Corn Storage Silos, identified as Unit ID LA-78, constructed in 1977, with no emission control device, exhausting to stack 57.

(b) Corn Steeping and Milling Area, consisting of:

(1) One (1) South Pre-Steep Aspiration, identified as Unit ID LA-62A, constructed in 1995, with no emission control device, exhausting to stack 40.

(2) One (1) North Pre-Steep Aspiration, identified as Unit ID LA-62B, constructed in 1995, with no emission control device, exhausting to stack 41.

(3) One (1) Millhouse Aspiration Process, identified as Unit ID LA-70, constructed in 1977, with a scrubber for control, exhausting to stack 4.

(c) Feed House and Boiler House Area, consisting of:

(1) One (1) natural gas/No. 2 fuel oil fired Zurn Boiler, identified as Unit ID LA-44, constructed in 1977, with a maximum heat input of 227 MMBtu/hr, with no emission control device, exhausting to stack 34.

(2) One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with a multiclone and an electrostatic precipitator for particulate control, with a scrubber (LAC-68) approved in 2013 for particulate, SO2 and HCl control, exhausting to stack 4.

(3) One (1) natural gas fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

(4) One (1) natural gas/No. 2 fuel oil direct fired Fiber Dryer, identified as Unit ID LA-8, constructed in 1977 (modified in 1995 and 2004), with a maximum heat input of 58 MMBtu/hr, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(5) One (1) natural gas/No. 2 fuel oil direct fired DSLC Dryer, identified as Unit ID LA-17A, constructed in 1977 (modified in 1995 and 2007), with a maximum heat input of 45 MMBtu/hr, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(6) One (1) natural gas direct fired Gluten Dryer, identified as Unit ID LA-15, constructed in 1995, with a maximum heat input of 52 MMBtu/hr, using low NOx burners, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(7) One (1) Germ RST Pre-Dryer, identified as Unit ID LA-60, constructed in 1995, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-69) for particulate, SO2, and VOC control, with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(8) One (1) natural gas/No. 2 fuel oil direct fired GR Dryer, identified as Unit ID LA-47, constructed in 1980 (modified in 1995), with a maximum heat input of 55 MMBtu/hr, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-69) for particulate and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(9) One (1) Germ RST Finish Dryer No.3, identified as Unit ID LA-53, constructed in 1991 (modified in 1995), with a cyclone (not integral) for particulate control, with a scrubber (LAC-69) for particulate and VOC control, with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(10) One (1) Feedhouse Aspiration System, identified as Unit ID LA-71, constructed in 1977, with scrubber for control (ID LA-71), exhausting to stack 4.

(11) One (1) Feed Cooler and Cyclone, identified as Unit ID LA-17B, constructed in 1977, with an integral product collector/cyclone and scrubber (ID LA-17B) for control, exhausting to stack 4.

(12) One (1) Cracked Corn to Gr. Conveyor Transfer Cyclone, identified as Unit ID LA-43, constructed in 1977, with an integral product collector/cyclone (ID LA-43) and a scrubber (ID LA-17B) for control, exhausting to stack 4.

(13) Two (2) Regenerative Thermal Oxidizers, identified as LAC-600 and LAC-601, approved in 2013 for construction, controlling VOC and CO emissions from multiple units, each with a heat input capacity of 35 MMBtu/hr natural gas, exhausting to stack 4.

(d) Feed Products Storage and Loadout Area, consisting of:

(1) One (1) Corn Cleanings Bin, identified as Unit ID LA-22, constructed in 1977, with a baghouse for control, exhausting to stack 3.

(2) One (1) Gluten Conveyor to Storage/Loadout, identified as Unit ID LA-21, constructed in 1977, with a baghouse for control, exhausting to stack 10.

(3) One (1) Cooled Germ Conveyor to Storage Bin, identified as Unit ID LA-18, constructed in 1977, with a baghouse for control, exhausting to stack 11.

(4) One (1) Gluten Loadout, identified as Unit ID LA-21B, constructed in 2004, with a baghouse for control, exhausting to stack 9.

(5) One (1) Pellet Cooler #1, identified as Unit ID LA-79, constructed in 2004, with a cyclone (not integral) for control, exhausting to stack 58.

(6) One (1) Combo Pellet Cooler, identified as Unit ID LA-63, constructed in 1995, a cyclone (not integral) for control, exhausting to stack 42.

(7) One (1) Pellet Cooler #4, identified as Unit ID LA-80, constructed in 2004, with an cyclone (not integral) for control, exhausting to stack 59.

(8) One (1) Pellet Cooler #5, identified as Unit ID LA-81, constructed in 2004, with an cyclone (not integral) for control, exhausting to stack 60.

(9) One (1) Pellet Storage Bin, identified as Unit ID LA-64, constructed in 1995, with a integral baghouse for control, exhausting to stack 43.

(10) One (1) Hammermill Aspiration Process, identified as Unit ID LA-77, constructed in 2000, with a scrubber for control, exhausting to stack 54.

(11) One (1) Feed Dump Aspiration System, identified as Unit ID LA-83, constructed in 2004, with a baghouse for control, exhausting to stack 62.

(12) One (1) blond Pellet Bin, identified as Unit ID LA-82, constructed in 2004, with two baghouses for control, exhausting to stack 61.

(e) Refinery Area, consisting of:

(1) One (1) Mud Centrifuges Vent #1, identified as Unit ID LA-72, constructed in 1977, with no emission control device, exhausting to stack 46.

(2) One (1) Mud Centrifuges Vent #2, identified as Unit ID LA-73, constructed in 1977, with no emission control device, exhausting to stack 47.

(3) One (1) Mud Centrifuges Vent #3, identified as Unit ID LA-74, constructed in 1977, with no emission control device, exhausting to stack 53.

(4) One (1) Jets Foam Trap, identified as Unit ID LA-75, constructed in 1977, with no emission control device, exhausting to stack 48.

(5) One (1) Soda Ash Unloading and Storage, identified as Unit ID LA-29, constructed in 1977, with a scrubber for control, exhausting to stack 19.

(6) Two (2) Hydrochloric Acid Storage Tanks, identified as Unit ID LA-41, constructed in 1977, with a scrubber for control, exhausting to stack 32.

(7) One (1) Hydrochloric Acid Supply Head Tank, identified as Unit ID LA-76, constructed in 1977, with a scrubber for control, exhausting to stack 50.

(8) One (1) Cation IX Drain Tank, identified as Unit ID LA-65A, constructed in 1977, with a scrubber for control, exhausting to stack 51.

(9) One (1) Filter Aid Truck Unloading to West Storage Bin, identified as Unit ID LA-31, constructed in 1977, with a baghouse for control, exhausting to stack 20A.

(10) One (1) Filter Aid Truck Unloading to East Storage Bin, identified as Unit ID LA-31, constructed in 1977, with a baghouse for control, exhausting to stack 20B.

(11) One (1) Filter Aid Transfer from Storage Bins to Weighing Hopper, identified as Unit ID LA-32, constructed in 1993, with a baghouse for control, exhausting to stack 21.

(12) One (1) MBS Aspiration System, identified as Unit ID LA-61, constructed in 1995, with a scrubber for control, exhausting to stack 49.

(13) One (1) natural gas/No. 2 fuel oil fired Carbon Reactivation Furnace, identified as Unit ID LA-28, constructed in 1977, with a maximum heat input of 22 MMBtu/hr, with a scrubber for control, exhausting to stack 33.

(14) One (1) Krystar Dryer/Cooler, identified as Unit ID LA-51, constructed in 1995, with emissions controlled by two integral cyclones/product collectors (53L605) and a wet scrubber (53L606), exhausting to stack 35.

(15) One (1) natural gas-fired Carbon Reactivation Furnace, identified as Unit ID LA-28B, approved for construction in 2007, with a maximum heat input of 15 MMBtu/hr, with a wet scrubber and an afterburner for control, exhausting to stack 33B.

(16) One (1) Spent Filter Aid Aspiration System, identified as LA-52, approved in 2013 for installation, with a baghouse (LAC-52) for particulate control, exhausting to stack 52, with emissions from:

(A) One (1) Filter Aid Mixer, identified as 526302.

(B) One Filter Aid Mixer Box Discharge Conveyor, identified as 566303.

(f) Coal and Ash Storage and Handling Area, consisting of:

(1) One (1) Coal Unloading Building Aspiration System, identified as Unit ID LA-33, constructed in 1977, with a baghouse for control, exhausting to stack 22.

(2) One (1) Crusher and Transfer Building Aspiration System, identified as Unit ID LA-34, constructed in 1977, with a baghouse for control, exhausting to stack 23.

(3) One (1) Coal Storage Silos Top Aspiration System, identified as Unit ID LAB35, constructed in 1977, with a baghouse for control, exhausting to stack 24.

(4) One (1) Coal Storage Silos Bottom Aspiration System, identified as Unit ID LA-36, constructed in 1977, with a baghouse for control, exhausting to stack 25.

(5) One (1) Utility Building Aspiration System #1, identified as Unit ID LA-37, constructed in 1977, with a baghouse for control, exhausting to stack 26.

(6) One (1) Utility Building Aspiration System #2, identified as Unit ID LA-38, constructed in 1977, with a baghouse for control, exhausting to stack 27.

(7) One (1) Coal Silo Aspiration System, identified as Unit ID LA-55, constructed in 1977, with a rotoclone for control, exhausting to stack 28.

(8) One (1) Coal Bunkers Aspiration, identified as Unit ID LA-56, constructed in 1977, with a rotoclone for control, exhausting to stack 29.

(9) One (1) Ash Transfer Aspiration Vacuum Blower #1, identified as Unit ID LA-42A, constructed in 1977, with a baghouse for control, exhausting to stack 30A.

(10) One (1) Ash Transfer Aspiration Vacuum Blower #2, identified as Unit ID LA-42A, constructed in 1977, with a baghouse for control, exhausting to stack 30B.

(11) One (1) Ash Silo Aspiration Air East Vent, identified as Unit ID LA-42B, constructed in 1977, with a dampered vent, exhausting to stack 31A.

(12) One (1) Ash Silo Aspiration Air West Vent, identified as Unit ID LA-42B, constructed in 1977, with a dampered vent, exhausting to stack 31B.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6-3-2].

(b) Vents from ash transport systems not operated at positive pressure [326 IAC 6-3-2].

(c) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

(d) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables. [326 IAC 6-3-2]

(e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(f) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NOx; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Germ Day Bin, exhausting to stack 61. [326 IAC 6-3-2]

(2) Starch/Gluten Loadout, exhausting to stack 8. [326 IAC 6-3-2]

(3) Salt Storage Tank, exhausting to stack 12. [326 IAC 6-3-2]

(4) Soda Ash Head Tank, exhausting to stack 52. [326 IAC 6-3-2]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]

(a) This permit, T157-6008-00033, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

(a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) the "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

IDEM, OAQ
Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-0178 (ask for Compliance Section)
Facsimile No.: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T157-6008-00033 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(c), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modification are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios Part 70 Operating Permit
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] [326 IAC 2-3-2]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 1-7-2, 1-7-3(c) and (d), 1-7-4, and 1-7-5(a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or

before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.11 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.

(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

(c) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at east four (4) hours between each set of readings, until a COMS is online.

(3) Method 9 readings may be discontinued once a COMS is online.

(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale.

(b) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

(c) The Permittee may request the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 14, 2000.

(b) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance as defined in 40 CFR 68 is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6] [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) Pursuant to 326 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) (ARegulated pollutant which is used only for purposes of Section 19 of this rule@) from the source, for purposes of fee assessment.

(b) The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of required monitoring data, reports and support information required by this Permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are

available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for

review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Corn Receiving and Handling Area, consisting of:

(1) One (1) Corn Receiving (Corn Unloading Dust Collector), identified as Unit ID LA-1, constructed in 1977, with a baghouse for control, exhausting to stack 1.

(2) One (1) Corn Silo (Elevator Dust Collector), identified as Unit ID LA-2, constructed in 1977, with a baghouse for control, exhausting to stack 2.

(3) Twelve (12) Corn Storage Silos, identified as Unit ID LA-78, constructed in 1977, with no emission control device, exhausting to stack 57.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to CP 157-3581-00033, issued February 27, 1995:

(a) The PM/PM10 emissions from LA-1 shall not exceed 1.89 pounds per hour and 8.3 tons per year.

(b) The PM/PM10 emissions from LA-2 shall not exceed 1.03 pounds per hour and 4.5 tons per year.

Compliance with these limits shall render the requirements of 40 CFR 52.21 and 326 IAC 2-2 not applicable for PM and PM10.

D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from facilities LA-1, LA-2 and LA-78 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Or depending on the process weight rate:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Note that the specific 326 IAC 6-3-2 limits have not been listed here as the process throughputs of the respective facilities are treated as confidential until a determination has been made.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.4 Particulate Control

In order to comply with Conditions D.1.1 and D.1.2, the baghouses for particulate control shall be in operation and control emissions from LA-1 and LA-2 at all times that the facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations

(a) Visible emission notations of LA-1 and LA-2 stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with facilities LA-1 and LA-2, at least once per day when LA-1 and LA-2 are in operation. When for any one reading or observance, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.7 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of the once per day visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of the once per day pressure drop readings. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(b) Corn Steeping and Milling Area, consisting of:

(1) One (1) South Pre-Steep Aspiration, identified as Unit ID LA-62A, constructed in 1995, with no emission control device, exhausting to stack 40.

(2) One (1) North Pre-Steep Aspiration, identified as Unit ID LA-62B, constructed in 1995, with no emission control device, exhausting to stack 41.

(3) One (1) Millhouse Aspiration Process, identified as Unit ID LA-70, constructed in 1977, with a scrubber for control, exhausting to stack 4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to CP 157-3581-00033, issued February 27, 1995 and amended April 5, 1995:

(a) The sulfur dioxide emissions from LA-62A and LA-62B shall not exceed 1.37 pounds per hour.

(b) The total sulfur dioxide emissions from scrubber LA-70 (controlling emissions from the millhouse) shall not exceed 12.85 pounds per hour and the concentration of sulfur dioxide in the exhaust shall not exceed 17 ppm.

Compliance with these limits shall render the requirements of 326 IAC 2-2 not applicable for SO_2.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.2.3 Sulfur Dioxide Control

In order to comply with Conditions D.2.1, the scrubber shall be in operation and control emissions from LA-70 at all times that the facility is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.4 Monitoring for Scrubber

(a) The Permittee shall monitor the pH of the scrubbing liquid of the scrubber controlling emissions from LA-70 every hour during normal operation. The pH shall not be less than 5.0 and shall average 7.0 based on twelve (12) consecutive one-hour pH readings recorded during each shift.

(b) The Permittee shall monitor the scrubber recirculation rate of the scrubber controlling emissions from LA-70 every hour during normal operation.

(c) When for any one reading, the pH and flow rate readings across the scrubber is outside of the respective normal ranges, as specified by the manufacturer, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or

Exceedances. A reading that is outside the normal range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pH and flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.5 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In the event that scrubber failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.6 Record Keeping Requirements

(a) To document compliance with Condition D.2.4, the Permittee shall maintain hourly records of the pH of the scrubbing liquid and scrubber recirculation rate of the scrubber controlling emissions from LA-70.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(c) Feed House and Boiler House Area, consisting of:

(1) One (1) natural gas/No. 2 fuel oil fired Zurn Boiler, identified as Unit ID LA-44, constructed in 1977, with a maximum heat input of 227 MMBtu/hr, with no emission control device, exhausting to stack 34.

(2) One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with a multiclone and an electrostatic precipitator for particulate control, with a scrubber (LAC-68) approved in 2013 for particulate, SO2 and HCl control, exhausting to stack 4.

(3) One (1) natural gas fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

(4) One (1) natural gas/No. 2 fuel oil direct fired Fiber Dryer, identified as Unit ID LA-8, constructed in 1977 (modified in 1995 and 2004), with a maximum heat input of 58 MMBtu/hr, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(5) One (1) natural gas/No. 2 fuel oil direct fired DSLC Dryer, identified as Unit ID LA-17A, constructed in 1977 (modified in 1995 and 2007), with a maximum heat input of 45 MMBtu/hr, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and Co emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(6) One (1) natural gas direct fired Gluten Dryer, identified as Unit ID LA-15, constructed in 1995, with a maximum heat input of 52 MMBtu/hr, using low NOx burners, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(7) One (1) Germ RST Pre-Dryer, identified as Unit ID LA-60, constructed in 1995, an integral product collector/cyclone providing particulate control, with a scrubber (LAC-69) for particulate, SO2, and VOC control, with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(8) One (1) natural gas/No. 2 fuel oil direct fired GR Dryer, identified as Unit ID LA-47, constructed in 1980 (modified in 1995), with a maximum heat input of 55 MMBtu/hr, with an integral product collector/cyclone providing particulate control, with a scrubber (LAC-69) for particulate and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(9) One (1) Germ RST Finish Dryer No.3, identified as Unit ID LA-53, constructed in 1991 (modified in 1995), with a cyclone (not integral) for particulate control, with a scrubber (LAC-69) for particulate and VOC control, with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601), exhausting to stack 4.

(10) One (1) Feedhouse Aspiration System, identified as Unit ID LA-71, constructed in 1977, with scrubber for control (ID LA-71), exhausting to stack 4.

(11) One (1) Feed Cooler and Cyclone, identified as Unit ID LA-17B, constructed in 1977, with an integral product collector/cyclone and scrubber (ID LA-17B) for control, exhausting to

stack 4.

(12) One (1) Cracked Corn to Gr. Conveyor Transfer Cyclone, identified as Unit ID LA-43, constructed in 1977, with an integral product collector/cyclone (ID LA-43) and a scrubber (ID LA-17B) for control, exhausting to stack 4.

(13) Two (2) Regenerative Thermal Oxidizers, identified as LAC-600 and LAC-601, approved in 2013 for construction, controlling VOC and CO emissions from multiple units, each with a heat input capacity of 35 MMBtu/hr natural gas, exhausting to stack 4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 CO Emissions [326 IAC 2-2] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

The IDEM, OAQ has information that indicates that the CO emissions from facilities LA-45, LA-46, LA-8, LA-15, LA-17A, LA-47, LA-44, and LA-28 have contributed to a violation of 326 IAC 2-2 (Prevention of Significant Deterioration). Therefore, the Permit Shield provided in Section B of this permit does not apply to those emission units with regards to 326 IAC 2-2 (PSD). The OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-2 (PSD) and a schedule for achieving compliance with such requirements once this issue has been thoroughly reviewed.

D.3.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

(a) Pursuant to OP 79-07-89-0345, issued February 5, 1986:

(1) The particulate emissions from LA-44 shall not exceed 45.4 pounds per hour and 198.9 tons per year.

(2) The sulfur dioxide emissions from LA-44 shall not exceed 363.2 pounds per hour and 1590.8 tons per year.

(3) The particulate emissions from LA-46 shall not exceed 9.8 pounds per hour and 42.9 tons per year.

(4) The sulfur dioxide emissions from LA-46 shall not exceed 78.4 pounds per hour and 343.4 tons per year.

Compliance with these particulate and sulfur dioxide limitations will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

(b) Pursuant to CP 157-3581-00033, issued February 27, 1995 and amended April 5, 1995:

(1) The total PM/PM10 emissions from LA-43 and LA-17B shall not exceed 6.43 pounds per hour.

(2) The PM/PM10 emissions from LA-53 shall not exceed 4.29 pounds per hour.

(3) The total sulfur dioxide emissions from scrubbers LA-70 and LA-71 (controlling emissions from various insignificant activities in the feedhouse and millhouse, respectively) shall not exceed 12.85 pounds per hour and the concentration of sulfur dioxide in the exhaust from scrubber LA-70 and LA-71 shall not exceed 17 ppm.

(4) The nitrogen oxide (NO_x) emissions from LA-15 shall not exceed 7.59 pounds per hour. Compliance with this limit shall be met with the use of low-NO_x burners.

Compliance with these limits shall render the requirements of 326 IAC 2-2 not applicable for the respective pollutants.

(c) Pursuant to SSM 157-11449-00033, issued August 16, 2000, and CP 157-3581-00033, issued February 27, 1995:

(1) The concentration of sulfur dioxide in the exhaust from scrubbers LAC-67 and LAC-69 (controlling emissions from LA-8, LA-17A, LA-15, LA-47 and LA-60 shall not exceed 187 parts per million (ppm).

(2) The particulate emissions from LA-45 shall not exceed 0.2 pounds per MMBtu heat input. Compliance with this limit will satisfy the requirements of 326 IAC 6-2-3(d) and will provide an emission credit which may be used at a future date pursuant to 326 IAC 2-2.

Compliance with these limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for PM, PM10 and SO_2.

(d) Pursuant to PSD 79-1551, issued August 31, 1984, and as revised by permit No. 157-6008-00033 issued June 28, 2004, the NO_x emissions from:

(1) LA-45 shall not exceed 119 pounds per hour and 523 tons per twelve consecutive month period.

(2) LA-46 shall not exceed 7.1 pounds per hour and 31 tons per twelve consecutive month period.

(3) LA-8 shall not exceed 65.6 pounds per hour and 287 tons per twelve consecutive month period.

(4) LA-17A shall not exceed 6.6 pounds per hour and 29 tons per twelve consecutive month period.

(5) LA-15 shall not exceed 93.4 pounds per hour and 409 tons per twelve consecutive month period.

(6) LA-47 shall not exceed 7.9 pounds per hour and 34.4 tons per twelve consecutive month period.

(7) LA-44 shall not exceed 32.4 pounds per hour and 142 tons per year; and

(8) LA-28 shall not exceed 3.2 pounds per hour and 14 tons per year.

Compliance with these limits is equivalent to total NO_x emissions from these facilities of less than 1,469 tons per year and will satisfy the requirements of 326 IAC 2-2.

(e) Pursuant to PSD 79-1551, issued August 31, 1984, and as revised by permit No. 157-6008-00033 issued June 28, 2004, the [illegible] (d) [illegible]:

(1) LA-45 shall not exceed 4.59 pounds per hour and 20 tons per twelve consecutive month period.

(2) LA-46 shall not exceed 4.11 pounds per hour and 18 tons per twelve consecutive month period.

(3) LA-8 shall not exceed 4.86 pounds per hour and 21 tons per twelve consecutive month period.

(4) LA-17A shall not exceed 3.79 pounds per hour and 17 tons per twelve consecutive month period.

(5) LA-15 shall not exceed 4.36 pounds per hour and 19 tons per twelve consecutive month period.

(6) LA-47 shall not exceed 4.61 pounds per hour and 20 tons per twelve consecutive month period.

(7) LA-44 shall not exceed 19.1 pounds per hour and 84 tons per year; and

(8) LA-28 shall not exceed 1.85 pounds per hour and 8.0 tons per year.

Compliance with these limits is equivalent to total CO emissions from these facilities of less than 208 tons per year and will satisfy the requirements of 326 IAC 2-2.

D.3.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from facilities LA-8, LA-17A, LA-17B, LA-15, LA-60, LA-47, LA-43 and LA-53 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Or depending on the process weight rate:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Note that the specific 326 IAC 6-3-2 limits have not been listed here as the process throughputs of the respective facilities is treated as confidential until a determination has been made.

(b) Pursuant to AA 157-16939-00033 issued on March 25, 2003 and SSM 157-11449-00033 issued on August 16, 2000 particulate matter emissions from LAC-67 and LAC-69 (controlling emissions from LA-8, LA-17A, LA-15, LA-47 and LA-60) shall be limited to a total of 61.12 pounds per hour after controls. Compliance with this limit will satisfy 326 IAC 6-3-2.

D.3.4 Particulate Matter (Sources of Indirect Heating) [326 IAC 6-2-3(e)]

Pursuant to 326 IAC 6-2-3(e), the particulate matter emissions from boilers LA-44, LA-45 and LA-46 shall not exceed 0.6 pounds per MMBtu heat input each.

D.3.5 Sulfur Dioxide [326 IAC 7-1.1-2] [326 IAC 7-2-1]

(a) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide (SO_2) emissions from LA-8, LA-17A, and LA-47 shall each not exceed 0.5 pounds per MMBtu heat input when combusting #2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

(b) Pursuant to 326 IAC 7-1.1-2(a)(1), the sulfur dioxide emissions from boiler LA-45 shall not exceed 6.0 pounds per MMBtu heat input when combusting coal. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.3.6 Volatile Organic Compounds - BACT [326 IAC 8-1-6]

Pursuant to SSM 157-11449-00033, issued August 16, 2000, and 326 IAC 8-1-6, the VOC emissions from facilities LA-15 and LA-60 shall be controlled by wet scrubbers, determined to be BACT, having at least forty five percent (45%) overall VOC control efficiency.

D.3.7 Administrative Consent Order Requirements

Pursuant to SSM 157-30513-00033 and as required by Administrative Consent Order No. EPA-5-070113(a) IL-04, the Permittee shall comply with the following:

(a) VOC emissions from dryers LA-8, LA-17A, LA-15, LA-47, LA-53, and LA-60 shall be reduced by 95% or no higher than an outlet concentration of 10 ppm.

(b) CO emissions from dryers LA-8, LA-17A, LA-15, and LA-47 shall be reduced by 90% or no higher than an outlet concentration of 100 ppm.

(c) The Permittee shall not use any emission reductions, achieved from the operation of the control equipment required to meet the limits in (a) and (b), for netting purposes as defined by 40 CFR 52.21(b)(3) and 326 IAC 2-2-1(ii) or for any emissions offset, banking, selling, or trading programs.

Compliance Determination Requirements

D.3.8 Particulate, Sulfur Dioxide, VOC, and Carbon Monoxide Control

In order to comply with Conditions D.3.2, D.3.3, D.3.4, D.3.5, D.3.6, and D.3.7, the cyclones (including those cyclones integral to the process), multiclones, electrostatic precipitator, scrubbers, and RTOs shall be in operation and control emissions from LA-8, LA-17A, LA-17B, LA-15, LA-60, LA-47, LA-43, LA-53, LA-45 and LA-71 at all times that the facilities are in operation.

D.3.9 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.3.5 shall be determined pursuant to 326 IAC 3-7-4. The Permittee shall demonstrate that the sulfur dioxide emissions from LA-8 and LA-17A do not exceed five-tenths (0.5) pound per million Btu heat input when combusting #2 fuel oil by:

(a) Providing vendor analysis of fuel delivered (including Btu per gallon and percent sulfur), if accompanied by a vendor certification, or;

(b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

A determination of noncompliance pursuant to the method specified above shall not be refuted by evidence of compliance pursuant to the other method.

D.3.10 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(3)(A)] [326 IAC 2-7-6]

In order to demonstrate compliance with Condition D.3.5(b) and pursuant to 326 IAC 7-2, the Permittee shall demonstrate that the sulfur dioxide emissions from LA-45 do not exceed six (6.0) pounds per MMBtu when combusting coal. Compliance shall be determined utilizing the following options:

(a) Providing vendor analysis of coal delivered. If accompanied by a certification from the fuel supplier, the certification shall include:

(1) The name of the coal supplier; and

(2) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the coal was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected); and

(3) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(4) The methods used to determine the properties of the coal; <u>and</u>

(b) Sampling and analyzing the coal using one of the following procedures:

(1) Minimum Coal Sampling Requirements and Analysis Methods:

(A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;

(B) Coal shall be sampled at least one (1) time per shift;

(C) Minimum sample size shall be five hundred (500) grams;

(D) Samples shall be composited and analyzed at the end of each calendar month;

(E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or

(2) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or

(c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from LA-45, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, which is conducted with such frequency as to generate the amount of information required by (a) or (b) above. [326 IAC 7-2-1(b)]

A determination of noncompliance pursuant to any of the methods specified in (a), (b), or (c) above shall not be refuted by evidence of compliance pursuant to the other method.

D.3.11 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Pursuant to SSM 157-11449-00033, issued August 16, 2000, the Permittee shall perform PM, PM_{10}, VOC, and SO_2 testing on LAC-67 and LAC-69 no later than May 19, 2008, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. If PM-10 is assumed to be 100% of PM, only PM tests need be performed. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) Not later than 180 days after the startup of RTOs (LAC-600 and LAC-601), in order to demonstrate compliance with Condition D.3.7, the Permittee shall perform VOC and CO testing on the RTOs controlling dryers LA-8, LA-17A, LA-15, LA-47, LA-53, and LA-60 utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.12 Visible Emissions Notations

(a) Visible emission notations of the exhaust from stacks 4 and 7 (exhausting emissions from facilities LA-8, LA-17A, LA-17B, LA-15, LA-60, LA-47, LA-43, LA-46 and LA-53) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of the exhaust from stack 34 (exhausting emissions from LA-44) shall be performed once per day during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.13 Cyclone Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In the event that cyclone failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

D.3.14 Scrubber Monitoring

(a) The Permittee shall monitor the pH of the recycled water from scrubbers LAC-67, LAC-68, and LAC-69 at least once per hour during normal operation. The pH shall not be less than 5.0 for any one reading and not less than 7.0 based on a twelve-reading average determined at least once per day.

(b) The Permittee shall monitor the pH of the recycled water from scrubber LA-71 at least once per hour during normal operation. The pH shall not be less than 5.0 for any one reading and not less than 7.0 based on a twelve-reading average determined at least once per day.

(c) The Permittee shall monitor the scrubbant flow rate of the gaseous and particulate sections

of scrubber LAC-67 at least once per hour during normal operation. The scrubbant flow rates for the gaseous and particulate sections of LAC-67 shall not average less than 1000 gallons per minute and 200 gallons per minute, respectively, based on a twelve-reading average determined at least once per day.

(d) The Permittee shall monitor the scrubbant flow rate of scrubber LAC-68 at least once per hour during normal operation. The scrubbant flow rates shall not average less than 200 gallons per minute based on a twelve-reading average determined at least once per day.

(e) The Permittee shall monitor the scrubbant flow rate of the gaseous and particulate sections of scrubber LAC-69 at least once per hour during normal operation. The scrubbant flow rates for the gaseous and particulate sections of LAC-69 shall not average less than 500 gallons per minute and 100 gallons per minute, respectively, based on a twelve-reading average determined at least once per day.

(f) The Permittee shall monitor the scrubbant flow rate of scrubber LA-17B at least once per hour during normal operation. The scrubbant flow rate shall not average less than 175 gallons per minute based on a twelve-reading average determined at least once per day.

(g) When for any reading, the pH and flow rate readings are outside of the specified ranges for any one reading, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pH or flow rate reading that is outside the normal range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(h) The instruments used for determining the pH and flow rates shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.15 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In the event that scrubber failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

D.3.16 Continuous Opacity Monitoring [326 IAC 3-5]

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from boiler LA-45 to ensure compliance with Conditions D.3.2 and D.3.4. The continuous opacity monitoring system shall meet the performance specifications of 326 IAC 3-5-2.

D.3.17 Opacity Readings

The ability of the continuous opacity monitor (COM) to monitor particulate emissions from boiler LA-45 shall be monitored by continuously measuring and recording the opacity of emissions from the stack exhaust.

Appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity from the boiler exceeds thirty percent (30%) for any three (3) consecutive six-minute average period. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.18 Method 9 Opacity Readings and Visible Emissions Notations

(a) Whenever a continuous opacity monitor (COM) is malfunctioning, the Permittee shall follow the procedures in accordance with Section C - Maintenance of Continuous Opacity Monitoring Equipment, until such time that the continuous opacity monitor is back in operation.

(b) When an abnormal emission is observed or whenever the opacity from a boiler exceeds thirty-eight percent (38%) for any two consecutive six-minute average periods, the Permittee shall take response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.19 RTO Temperature [40 CFR 64]

(a) Continuous monitoring systems shall be calibrated, maintained, and operated on the RTOs (LAC-600 and LAC-601) for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1,400°F.

(b) The Permittee shall determine the 3-hour average temperatures from the latest valid stack test that demonstrates compliance with limits in Condition D.3.7.

(c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperatures as observed during the latest compliant stack test.

(d) If the 3-hour average temperature falls below the above mentioned 3-hour average temperature, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. A 3-hour average temperature reading below the above mentioned 3-hour average temperature is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.3.20 Parametric Monitoring - RTO Duct Pressure or Fan Amperage

(a) The Permittee shall determine the appropriate duct pressure or fan amperage from the latest valid stack test that demonstrates compliance with limits in Condition D.3.7.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizers are in operation. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in latest compliant stack test.

(c) When, for any one reading, the duct pressure or fan amperage is outside the above mentioned range, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(d) The instruments used for determining the pressure drop shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.21 Record Keeping Requirements

(a) To document compliance with Condition D.3.5, the Permittee shall maintain records in accordance with (1) through (9) below. Records maintained for (1) through (9) shall be

taken monthly and shall be complete and sufficient to establish compliance with the sulfur dioxide emission limit established in Condition D.3.5.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) Actual coal usage since last compliance determination period and equivalent sulfur dioxide emissions;

(4) Sulfur content, heat content, and ash content;

(5) Vendor analysis of coal and coal supplier certification; and

(6) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

(7) Fuel supplier certifications;

(8) The name of the fuel supplier; and

(9) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(b) To document compliance with Condition D.3.12, the Permittee shall maintain records of the once per day visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.3.14, the Permittee shall maintain records of the:

(1) Hourly pH readings of scrubbers LAC-67, LAC-68, LAC-69 and LA-71;

(2) Hourly scrubbant flow rate readings of scrubbers LAC-67, LAC-68, LAC-69 and LA-17B;

(3) Average pH of the scrubbant of scrubbers LAC-67, LAC-68, LAC-69 and LA-71, determined once per shift based on twelve one-hour readings; and

(4) Average scrubbant flow rate of scrubbers LAC-67, LAC-68, LAC-69 and LA-71, determined once per shift based on twelve one-hour readings.

(d) To document compliance with Conditions D.3.16, D.3.17, and D.3.18, the Permittee shall maintain records of the continuous opacity monitoring (COM) data in accordance with 326 IAC 3-5. When the COM system is not functioning, the Permittee shall maintain the necessary records pursuant to Section C - Maintenance of Continuous Opacity Monitoring Equipment, and Response to Excursions or Exceedances. Records must be complete and sufficient to establish compliance with the limits established in this section.

(e) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(f) To document the compliance status with Condition D.3.19, the Permittee shall maintain continuous temperature records (on a three-hour average basis) for each thermal oxidizer (LAC-600 and LAC-601) and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(g) To document the compliance status with Condition D.3.20, the Permittee shall maintain daily records of the duct pressure or fan amperage. The Permittee shall include in its record when a reading is not taken and the reason for the lack of reading (e.g., the process did not operate that day).

(h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.22 Reporting Requirements

(a) A certification, signed by the responsible official, shall be submitted, that certifies all of the fuels combusted during the twelve month period.

(b) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) A semi-annual summary of the information to document compliance with Condition D.3.5 in any compliance period when No. 2 fuel oil was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To ensure compliance with Conditions D.3.10 and D.3.11, test results along with the amount of coal burned shall be submitted quarterly. Oil analysis may be based on the suppliers invoice and shall be submitted quarterly.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(d) Feed Products Storage and Loadout Area, consisting of:

(1) One (1) Corn Cleanings Bin, identified as Unit ID LA-22, constructed in 1977, with a baghouse for control, exhausting to stack 3.

(2) One (1) Gluten Conveyor to Storage/Loadout, identified as Unit ID LA-21, constructed in 1977, with a baghouse for control, exhausting to stack 10.

(3) One (1) Cooled Germ Conveyor to Storage Bin, identified as Unit ID LA-18, constructed in 1977, with a baghouse for control, exhausting to stack 11.

(4) One (1) Gluten Loadout, identified as Unit ID LA-21B, constructed in 2004, with a baghouse for control, exhausting to stack 9.

(5) One (1) Pellet Cooler #1, identified as Unit ID LA-79, constructed in 2004, with a cyclone (not integral) for control, exhausting to stack 58.

(6) One (1) Combo Pellet Cooler, identified as Unit ID LA-63, constructed in 1995, a cyclone (not integral) for control, exhausting to stack 42.

(7) One (1) Pellet Cooler #4, identified as Unit ID LA-80, constructed in 2004, with an cyclone (not integral) for control, exhausting to stack 59.

(8) One (1) Pellet Cooler #5, identified as Unit ID LA-81, constructed in 2004, with an cyclone (not integral) for control, exhausting to stack 60.

(9) One (1) Pellet Storage Bin, identified as Unit ID LA-64, constructed in 1995, with a integral baghouse for control, exhausting to stack 43.

(10) One (1) Hammermill Aspiration Process, identified as Unit ID LA-77, constructed in 2000, with a scrubber for control, exhausting to stack 54.

(11) One (1) Feed Dump Aspiration System, identified as Unit ID LA-83, constructed in 2004, with a baghouse for control, exhausting to stack 62.

(12) One (1) blond Pellet Bin, identified as Unit ID LA-82, constructed in 2004, with two baghouses for control, exhausting to stack 61.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Prevention of Significant Deterioration [326 IAC 2-2]

(a) Pursuant to PSD 79-1551, issued August 31, 1984, the PM emissions from LA-22 shall be controlled by baghouses that provide an overall control efficiency of at least 99.9%. Compliance with these limitations will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

(b) Pursuant to OP 79-07-89-0345, issued February 5, 1986:

(1) The PM emissions from LA-18 shall not exceed 0.26 pounds per hour and 1.1 tons per year; and

(2) The PM emissions from LA-22 shall not exceed 0.12 pounds per hour and 0.5 tons per year.

Compliance with these limitations will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

(c) Pursuant to CP 157-3581-00033, issued February 27, 1995 and amended April 5, 1995, the PM/PM10 emissions from LA-21 shall not exceed 1.03 pounds per hour.

Compliance with these limitations shall render the requirements of 326 IAC 2-2 not applicable for PM and PM10.

(d) Pursuant to SSM 157-16882-00033, issued December 5, 2003, and as revised by this permit:

(1) The PM/PM10 emissions shall not exceed the limits listed in the table below:

Unit ID	PM/PM10 emission limit (lb/hr)	PM/PM10 emission limit (ton/yr)
LA-21B	0.26	1.13
LA-63	3.00	13.1
LA-64	1.29	5.65
LA-77	0.77	3.38
LA-79	1.71	7.48
LA-80	1.71	7.48
LA-81	1.71	7.48
LA-82	0.26	1.13
LA-83	1.03	4.51

(2) The Permittee shall shut down units LA-19, LA-20, LA-23, LA-24, LA-49, and LA-59.

Compliance with these limitations shall render the requirements of 326 IAC 2-2 not applicable for PM and PM10.

D.4.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from facilities LA-22, LA-21, LA-18, LA-63, LA-64, LA-77, LA-21B, LA-79, LA-80, LA-81, LA-82, LA-83 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Or depending on the process weight rate:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Note that the specific 326 IAC 6-3-2 limits have not been listed here as the process throughputs of the respective facilities is treated as confidential until a determination has been made.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.4.4 Particulate Control

In order to comply with Conditions D.4.1 and D.4.2,

(a) The baghouses for particulate control, including those integral to the process, shall be in operation and control emissions from LA-22, LA-21, LA-18, LA-64, LA-21B, LA-82 and LA-83 at all times those facilities are in operation.

(b) The cyclones for particulate control, including those integral to the process, shall be in operation and control emissions from LA-79, LA-80, LA-81, and LA-63 at all times those facilities are in operation.

(c) The scrubber for particulate control shall be in operation and control emissions from LA-77 at all times the facility is in operation.

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to SSM 157-16882-00033, issued December 5, 2003, and SSM 157-11449-00033, issued August 16, 2000, within 60 days of achieving maximum production rate, but no later than 180 days after the initial startup of LA-63, the Permittee shall perform PM testing for LA-63 utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C-Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from LA-22, LA-21, LA-18, LA-21B, LA-63, LA-64, LA-79, LA-80, LA-81, LA-82 and LA-83 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of the stack exhaust from LA-77 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.4.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with LA-22, LA-21, LA-18, LA-82 and LA-64, at least once per day when these facilities are in operation. When for any one reading or observance, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.4.9 Cyclone Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In the event that cyclone failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

D.4.10 Scrubber Monitoring

(a) The Permittee shall monitor and record the scrubbing liquid rate from the scrubber controlling emissions from LA-77, at least once per hour, when the respective facility is in operation. The flow rate shall not average less than 25 gallons based on twenty-four (24) consecutive one-hour readings recorded during each day.

(b) When for any one reading, the flow rate is less than the normal range of 25 gallons per minute, or a minimum rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or

Exceedances. A pressure reading or flow rate that is outside the above mentioned ranges, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instrument used for determining the flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.11 Scrubber Failure Detection

In the event that a scrubber malfunction has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.12 Record Keeping Requirements

(a) To document compliance with Condition D.4.6, the Permittee shall maintain records of the once per day visible emission notations of the stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.4.7, the Permittee shall maintain records of the of the once per day pressure drop readings. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(c) To document compliance with Condition D.4.10, the Permittee shall maintain once per hour flow rate records of the scrubber controlling emissions from LA-77.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.5 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(e) Refinery Area, consisting of:

(1) One (1) Mud Centrifuges Vent #1, identified as Unit ID LA-72, constructed in 1977, with no emission control device, exhausting to stack 46.

(2) One (1) Mud Centrifuges Vent #2, identified as Unit ID LA-73, constructed in 1977, with no emission control device, exhausting to stack 47.

(3) One (1) Mud Centrifuges Vent #3, identified as Unit ID LA-74, constructed in 1977, with no emission control device, exhausting to stack 53.

(4) One (1) Jets Foam Trap, identified as Unit ID LA-75, constructed in 1977, with no emission control device, exhausting to stack 48.

(5) One (1) Soda Ash Unloading and Storage, identified as Unit ID LA-29, constructed in 1977, with a scrubber for control, exhausting to stack 19.

(6) Two (2) Hydrochloric Acid Storage Tanks, identified as Unit ID LA-41, constructed in 1977, with a scrubber for control, exhausting to stack 32.

(7) One (1) Hydrochloric Acid Supply Head Tank, identified as Unit ID LA-76, constructed in 1977, with a scrubber for control, exhausting to stack 50.

(8) One (1) Cation IX Drain Tank, identified as Unit ID LA-65A, constructed in 1977, with a scrubber for control, exhausting to stack 51.

(9) One (1) Filter Aid Truck Unloading to West Storage Bin, identified as Unit ID LA-31, constructed in 1977, with a baghouse for control, exhausting to stack 20A.

(10) One (1) Filter Aid Truck Unloading to East Storage Bin, identified as Unit ID LA-31, constructed in 1977, with a baghouse for control, exhausting to stack 20B.

(11) One (1) Filter Aid Transfer from Storage Bins to Weighing Hopper, identified as Unit ID LA-32, constructed in 1993, with a baghouse for control, exhausting to stack 21.

(12) One (1) MBS Aspiration System, identified as Unit ID LA-61, constructed in 1995, with a scrubber for control, exhausting to stack 49.

(13) One (1) natural gas/No. 2 fuel oil fired Carbon Reactivation Furnace, identified as Unit ID LA-28, constructed in 1977, with a maximum heat input of 22 MMBtu/hr, with a scrubber for control, exhausting to stack 33.

(14) One (1) Krystar Dryer/Cooler, identified as Unit ID LA-51, constructed in 1987, with emissions controlled by two integral cyclones/product collectors (53L605) and a wet scrubber (53L606), exhausting to stack 35.

(15) One (1) natural gas-fired Carbon Reactivation Furnace, identified as Unit ID LA-28B, approved for construction in 2007, with a maximum heat input of 15 MMBtu/hr, with a wet scrubber and an afterburner for control, exhausting to stack 33B.

(16) One (1) Spent Filter Aid Aspiration System, identified as LA-52, approved in 2013 for installation, with a baghouse (LAC-52) for particulate control, exhausting to stack 52, with emissions from:

(A) One (1) Filter Aid Mixer, identified as 526302.

(B) One Filter Aid Mixer Box Discharge Conveyor, identified as 566303.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

(a) Pursuant to OP 79-07-89-0345, issued February 5, 1986:

(1) The total particulate emissions from LA-31 shall not exceed 0.05 pounds per hour and 0.2 tons per year.

(2) The particulate emissions from LA-32 shall not exceed 0.03 pounds per hour and 0.1 tons per year.

(3) The sulfur dioxide emissions from LA-28 shall not exceed 10.4 pounds per hour and 45.6 tons per year.

Compliance with these limitations will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

(b) Pursuant to CP 157-3581-00033, issued February 27, 1995, and amended May 6, 1996:

(1) The PM/PM10 emissions from LA-28 shall not exceed 1.29 pounds per hour.

(2) The sulfur dioxide emissions from LA-61 shall not exceed 5.96 pounds per hour and the concentration of sulfur dioxide in the exhaust shall not exceed 500 ppm.

Compliance with these limitations shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for PM, PM10 and SO_2.

(c) Pursuant to SSM 157-11449-00033, issued August 16, 2000:

(1) The amount of steam vented under the alternate operating scenario from LA-75 shall not exceed 21,000,000 pounds per twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limitations shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for SO_2.

(d) Pursuant to CP 157-3581-00033, issued February 27, 1995 and amended April 5, 1995, and SSM 157-16770-00033, issued July 10, 2003, the PM/PM10 emissions from LA-51 shall not exceed 0.77 pounds per hour. Compliance with this limit will ensure compliance with 326 IAC 6-3-2, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for PM and PM10.

(e) The particulate emissions from LA-29 shall not exceed 0.11 pounds per hour and 0.5 tons per year.

Compliance with these limitations shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(f) In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, emissions from the

carbon reactivation furnace LA-28B shall not exceed the emission limits listed in the table below:

Pollutant	Emission Limits (lbs/hr)
PM/PM10	1.0
VOC	1.0
CO	5.0

Compliance with the above emission limits ensures that the emissions from the modification permitted in SSM 157-24835-00033 are limited to less than 25 tons per year for PM, 15 tons per year for PM10, 40 tons per year for VOC, and 100 tons per year for CO. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

(g) In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, emissions from the Spent Filter Aid Aspiration System (LA-52) shall be limited as follows:

(1) The PM emissions from LA-52 shall be less than 0.40 lb/hr.

(2) The PM10 emissions from LA-52 shall be less than 0.40 lb/hr.

(3) The PM2.5 emissions from LA-52 shall be less than 0.40 lb/hr.

Compliance with the above limits, combined with the potential to emit PM, PM10, and PM2.5 from the combustion of natural gas at RTOs No. 1 and 2 (LAC-600 and LAC-601), shall limit the potential to emit of the modification to less than twenty-five (25) tons of PM, fifteen (15) tons of PM10, and ten (10) tons of PM2.5 per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (PSD) not applicable to LA-52, LAC-600, or LAC-601.

D.5.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from facilities LA-29, LA-31(stack 20A), LA-31(stack 20B), LA-32, LA-28, LA-28B, LA-51, and LA-52 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Or depending on the process weight rate:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Note that the specific 326 IAC 6-3-2 limits have not been listed here as the process throughputs of the respective facilities is treated as confidential until a determination has been made.

D.5.3 Sulfur Dioxide [326 IAC 7-1.1-2] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions from LA-28 shall not exceed 0.5 pounds per MMBtu heat input when combusting #2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.5.4 VOC Emissions [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (BACT), the Permittee shall control the VOC emissions from carbon

reactivation furnace LA-28B with a Best Available Control Technology (BACT), which has been determined to be the following:

(a) The VOC emissions from the furnace LA-28B shall be controlled by an afterburner.

(b) The VOC emissions from the furnace LA-28B stack (Stack 33B) shall not exceed 1.0 lbs/hr.

(c) The overall VOC control efficiency for the afterburner (including the capture efficiency and destruction efficiency) shall be at least 98%, or the VOC outlet concentration shall not exceed 10 ppmv.

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.5.6 Particulate and Sulfur Dioxide Control

In order to comply with Conditions D.5.1 and D.5.2:

(a) The baghouses for particulate control shall be in operation and control emissions from LA-31(stack 20A), LA-31(stack 20B), LA-32, and LA-52 at all times that the respective facilities are in operation.

(b) The scrubbers for particulate control shall be in operation and control emissions from LA-28, LA-29 and LA-51 at all times that the respective facilities are in operation.

(c) The cyclone, determined to be integral to the process, for particulate control shall be in operation and control emissions from LA-51 at all times that the facility is in operation.

(d) The scrubber for sulfur dioxide control shall be in operation and control emissions from LA-61 at all times that the facility is in operation.

(e) The wet scrubber for particulate control and the afterburner for VOC and CO control shall be in operation and control emissions from furnace LA-28B at all times that this furnace in operation.

D.5.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.5.3 shall be determined pursuant to 326 IAC 3-7-4. The Permittee shall demonstrate that the sulfur dioxide emissions from LA-28 do not exceed five-tenths (0.5) pound per million Btu heat input when combusting #2 fuel oil by:

(a) Providing vendor analysis of fuel delivered (including Btu per gallon and percent sulfur), if accompanied by a vendor certification, or;

(b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

A determination of noncompliance pursuant to the method specified above shall not be refuted by evidence of compliance pursuant to the other method.

D.5.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) In order to verify compliance with Conditions D.5.1(f), D.5.2, D.5.4(b), and D.5.4(c), the Permittee shall perform PM/PM10, VOC (including emission rate, destruction efficiency, and capture efficiency), and CO testing for furnace LA-28B within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM10.

(b) Not later than 180 days after the startup of LA-52, in order to demonstrate compliance with Condition D.5.1(g), the Permittee shall perform PM, PM10, and PM2.5 testing of the Spent Filter Aid Aspiration System utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 include filterable and condensable PM.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.9 Visible Emissions Notations

(a) Visible emission notations of LA-29, LA-28, LA-28B, LA-51, and LA-52 stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of LA-31(stack 20A), LA-31(stack 20B), and LA-32 stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.5.10 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used to control emissions from LA-31(stack 20A), LA-31(stack 20B), and LA-32, at least once per day when the facilities are in operation. When for any one reading or observance, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.11 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit~~s~~ and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.5.12 Scrubber Monitoring

(a) The Permittee shall monitor the pH of the scrubbing liquid and scrubber recirculation rate at least once per day of the scrubber controlling emissions from LA-61 during normal operation. When for any one reading, the pH or flow rate readings across the scrubber are outside of the respective normal ranges, as specified by the manufacturer, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Excursions. A reading that is outside the normal range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall monitor the scrubber recirculation rate at least once per day of the scrubbers controlling emissions from LA-28, LA-28B, and LA-29 during normal operation. When for any one reading the flow rate readings are outside of the respective normal ranges, as specified by the manufacturer, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Excursions. A reading that is outside the normal range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The Permittee shall monitor the scrubbant flow rate at least once per hour of the scrubber controlling emissions from LA-51. The Permittee shall also average the previous twenty-four (24) readings of the scrubbant flow rate once per day. If the average scrubbant flow rate (based on twenty-four (24), one-hour readings) is less than 100 gallons per minute, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. An average scrubbant flow rate (based on twenty-four (24), one-hour readings) that is less than 100 gallons per minute is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(d) The instruments used for determining the pH and flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.13 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In the event that scrubber failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

D.5.14 Cyclone Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

In the event that cyclone failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

D.5.15 Afterburner Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the afterburner associated with furnace LA-28B for measuring operating temperature. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the afterburner associated with furnace LA-28B at or above the 3-hour average temperature of 1,400°F.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.5.1(f) and D.5.4(b), as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the afterburner associated with furnace LA-28B at or above the 3-hour average temperature as observed during the compliant stack test.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.16 Record Keeping Requirements

(a) To document compliance with Condition D.5.1(c), the Permittee shall maintain records of the total pounds of steam vented per calendar month. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.5.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the sulfur dioxide emission limit established in Condition D.5.3.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used;

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

(c) To document compliance with Condition D.5.9(a), the Permittee shall maintain records of the once per day visible emission notations of the stack exhaust from LA-29, LA-28, LA-28B, LA-51, and LA-52. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) To document compliance with Condition D.5.9(b), the Permittee shall maintain records of the once per day visible emission notations of the stack exhaust from LA-31(stack 20A), LA-31(stack 20B), and LA-32. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(e) To document compliance with Condition D.5.10, the Permittee shall maintain records of the once per day pressure drop readings. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(f) To document compliance with Condition D.5.12, the Permittee shall maintain:

(1) Once per day records of the scrubbing liquid pH and scrubber recirculation rate of the scrubber controlling emissions from LA-61. The Permittee shall include in its daily record when the pH and scrubber recirculation rate reading are not taken and the reason for the lack of pH reading and recirculation rate reading (e.g. the process did not operate that day).

(2) Once per day records of the scrubber recirculation rate of the scrubbers controlling emissions from LA-28, LA-28B, and LA-29. The Permittee shall include in its daily record when a scrubber recirculation rate reading is not taken and the reason for the lack of recirculation rate reading (e.g. the process did not operate that day).

(3) Hourly scrubbant flow rate readings of the scrubber controlling emissions from LA-51.

(4) Once per day average scrubbant flow rate of the scrubber controlling emissions from LA-51 based on twenty-four (24) one-hour readings.

(g) To document compliance with Condition D.5.15, the Permittee shall maintain continuous temperature records for the afterburner associated with furnace LA-28B and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.17 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.5.1(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent,

within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A certification, signed by the responsible official, shall be submitted, that certifies all of the fuels combusted during the twelve month period.

(c) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) A semi-annual summary of the information to document compliance with Condition D.5.3 in any compliance period when No. 2 fuel oil was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(f) Coal and Ash Storage and Handling Area, consisting of:

(1) One (1) Coal Unloading Building Aspiration System, identified as Unit ID LA-33, constructed in 1977, with a baghouse for control, exhausting to stack 22.

(2) One (1) Crusher and Transfer Building Aspiration System, identified as Unit ID LA-34, constructed in 1977, with a baghouse for control, exhausting to stack 23.

(3) One (1) Coal Storage Silos Top Aspiration System, identified as Unit ID LAB35, constructed in 1977, with a baghouse for control, exhausting to stack 24.

(4) One (1) Coal Storage Silos Bottom Aspiration System, identified as Unit ID LA-36, constructed in 1977, with a baghouse for control, exhausting to stack 25.

(5) One (1) Utility Building Aspiration System #1, identified as Unit ID LA-37, constructed in 1977, with a baghouse for control, exhausting to stack 26.

(6) One (1) Utility Building Aspiration System #2, identified as Unit ID LA-38, constructed in 1977, with a baghouse for control, exhausting to stack 27.

(7) One (1) Coal Silo Aspiration System, identified as Unit ID LA-55, constructed in 1977, with a rotoclone for control, exhausting to stack 28.

(8) One (1) Coal Bunkers Aspiration, identified as Unit ID LA-56, constructed in 1977, with a rotoclone for control, exhausting to stack 29.

(9) One (1) Ash Transfer Aspiration Vacuum Blower #1, identified as Unit ID LA-42A, constructed in 1977, with a baghouse for control, exhausting to stack 30A.

(10) One (1) Ash Transfer Aspiration Vacuum Blower #2, identified as Unit ID LA-42A, constructed in 1977, with a baghouse for control, exhausting to stack 30B.

(11) One (1) Ash Silo Aspiration Air East Vent, identified as Unit ID LA-42B, constructed in 1977, with a dampered vent, exhausting to stack 31A.

(12) One (1) Ash Silo Aspiration Air West Vent, identified as Unit ID LA-42B, constructed in 1977, with a dampered vent, exhausting to stack 31B.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Prevention of Significant Deterioration [326 IAC 2-2]

Pursuant to OP 79-07-89-0345, issued February 5, 1986:

(a) The particulate emissions from LA-33 shall not exceed 1.77 pounds per hour and 7.8 tons per year.

(b) The particulate emissions from LA-34 shall not exceed 0.69 pounds per hour and 3.0 tons per year.

(c) The particulate emissions from LA-35 shall not exceed 0.51 pounds per hour and 2.2 tons per year.

(d) The particulate emissions from LA-36 shall not exceed 0.84 pounds per hour and 3.7 tons per year.

(e) The particulate emissions from LA-37 shall not exceed 0.10 pounds per hour and 0.44 tons per year.

(f) The particulate emissions from LA-38 shall not exceed 0.10 pounds per hour and 0.44 tons per year.

(g) The total particulate emissions from LA-42A shall not exceed 0.33 pounds per hour and 1.4 tons per year.

(h) The total particulate emissions from LA-42B shall not exceed 0.9 pounds per hour and 3.9 tons per year.

Compliance with these limitations will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

D.6.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from facilities LA-33, LA-34, LA-35, LA-36, LA-37, LA-38, LA-55, LA-56, LA-42A (stack 30A), LA-42A (stack 30B), LA-42B (stack 31A) and LA-42B (stack 31B) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Or depending on the process weight rate:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Note that the specific 326 IAC 6-3-2 limits have not been listed here as the process throughputs of the respective facilities is treated as confidential until a determination has been made.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.6.4 Particulate Control

In order to comply with Conditions D.6.1 and D.6.2,

(a) The baghouses for particulate control shall be in operation and control emissions from LA-33, LA-34, LA-35, LA-36, LA-37, LA-38, LA-42A (stack 30A) and LA-42A (stack 30B) at all times that the facilities are in operation.

(b) The rotoclones for particulate control shall be in operation and control emissions from LA-55 and LA-56 at all times that the facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.5 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust from LA-55, LA-56, LA-42A (stack 30A), LA-42A (stack 30B), LA-42B (stack 31A) and LA-42B (stack 31B) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) Visible emission notations of the stack exhaust from LA-33, LA-34, LA-35, LA-36, LA-37, and LA-38 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.6.6 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouses used in conjunction with LA-42A (stack 30A) and LA-42A (stack 30B) at least once per day when the facilities are in operation. When for any one reading or observance, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the baghouses used in conjunction with LA-33, LA-34, LA-35, LA-36, LA-37, and LA-38 at least once per day when the facilities are in operation. When for any one reading or observance, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(c) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.6.7 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit~~s~~ and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event

qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.6.8 Rotoclone Failure Detection

In the event that rotoclone failure has been observed:

The feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document compliance with Condition D.6.5, the Permittee shall maintain records of the once per day visible emission notations from LA-42A (stack 30A) and LA-42A (stack 30B), LA-42B (stack 31A) and LA-42B (stack 31B). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document compliance with Condition D.6.5, the Permittee shall maintain records of the once per day visible emission notations from LA-33, LA-34, LA-35, LA-36, LA-37, and LA-38. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.6.6, the Permittee shall maintain records of the pressure drop readings once per day. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Specifically Regulated Insignificant Activities

(a) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6-3-2].

(b) Vents from ash transport systems not operated at positive pressure [326 IAC 6-3-2].

(c) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

(d) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables. [326 IAC 6-3-2]

(e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(f) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NOx; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Germ Day Bin, exhausting to stack 61. [326 IAC 6-3-2]

(2) Starch/Gluten Loadout, exhausting to stack 8. [326 IAC 6-3-2]

(3) Salt Storage Tank, exhausting to stack 12. [326 IAC 6-3-2]

(4) Soda Ash Head Tank, exhausting to stack 52. [326 IAC 6-3-2]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the insignificant activities listed in this section shall be limited using the following equation:

Those activities with a process weight rate of less than 100 pounds per hour shall be limited to 0.551 pounds per hour;

Or depending on the process weight rate:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION E.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(c)(1) One (1) natural gas/No. 2 fuel oil fired Zurn Boiler, identified as Unit ID LA-44, constructed in 1977, with a maximum heat input of 227 MMBtu/hr, with no emission control device, exhausting to stack 34.

(c)(2) One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with a multiclone and an electrostatic precipitator for particulate control, with a scrubber (LAC-68) approved in 2013 for particulate, SO2 and HCl control, exhausting to stack 4.

(c)(3) One (1) natural gas fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to NESHAP, Subpart DDDDD [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.7565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 10 of 40 CFR 63, Subpart DDDDD in accordance with the schedule in 40 CFR Part 63, Subpart DDDDD.

E.1.2 National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (included as Attachment A of the permit), which are incorporated by reference as 326 IAC 20-95, for the boilers no later than January 31, 2016:

(a) Zurn Boiler (LA-44):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(l), (q), (u)
(6) 40 CFR 63.7500(a), (b), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a), (c)
(9) 40 CFR 63.7510(a), (b), (c), (d), (e)
(10) 40 CFR 63.7515(a), (b), (c), (d), (e), (f), (g), (h)
(11) 40 CFR 63.7520
(12) 40 CFR 63.7521(a), (b), (c), (d), (e)
(13) 40 CFR 63.7525(a)
(14) 40 CFR 63.7530(a), (b), (c), (e), (f), (h)
(15) 40 CFR 63.7533
(16) 40 CFR 63.7540(a)(1), (a)(2), (a)(3), (a)(5), (a)(10), (a)(13), (b), (d)

(17) 40 CFR 63.7545(a), (b), (d), (e), (h)
(18) 40 CFR 63.7550(a), (b), (c), (d), (h)(1), (h)(3)
(19) 40 CFR 63.7555(a), (c), (d), (f), (h), (i), (j)
(20) 40 CFR 63.7560
(21) 40 CFR 63.7565
(22) 40 CFR 63.7570
(23) 40 CFR 63.7575
(24) Table 2 to Subpart DDDDD of Part 63, items (14), (16)
(25) Table 3 to Subpart DDDDD of Part 63, items (3), (4), (5), (6)
(26) Table 4 to Subpart DDDDD of Part 63, items (7), (8), (9)
(27) Table 5 to Subpart DDDDD of Part 63, items (1), (3), (4), (5)
(28) Table 6 to Subpart DDDDD of Part 63, items (1), (2)
(29) Table 7 to Subpart DDDDD of Part 63, items (4), (5)
(30) Table 8 to Subpart DDDDD of Part 63, items (8), (9), (10)
(31) Table 9 to Subpart DDDDD of Part 63
(32) Table 10 to Subpart DDDDD of Part 63

(b) Riley Stoker Boiler (LA-45):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(b)
(6) 40 CFR 63.7500(a), (b), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a), (c)
(9) 40 CFR 63.7510(a), (b), (c), (d), (e)
(10) 40 CFR 63.7515(a), (b), (c), (d), (e), (f), (g)
(11) 40 CFR 63.7520
(12) 40 CFR 63.7521(a), (b), (c), (d), (e)
(13) 40 CFR 63.7525(a), (e), (f), (g), (h)
(14) 40 CFR 63.7530(a), (b), (c), (e), (f), (h)
(15) 40 CFR 63.7533
(16) 40 CFR 63.7540(a)(1), (a)(2), (a)(3), (a)(5), (a)(10), (a)(13), (b), (d)
(17) 40 CFR 63.7545(a), (b), (d), (e), (h)
(18) 40 CFR 63.7550(a), (b), (c), (d), (h)(1), (h)(3)
(19) 40 CFR 63.7555(a), (c), (d), (f), (i), (j)
(20) 40 CFR 63.7560
(21) 40 CFR 63.7565
(22) 40 CFR 63.7570
(23) 40 CFR 63.7575
(24) Table 2 to Subpart DDDDD of Part 63, items (1), (2), (4)
(25) Table 3 to Subpart DDDDD of Part 63, items (3), (4), (5), (6)
(26) Table 4 to Subpart DDDDD of Part 63, items (1), (2), (7), (8), (9)
(27) Table 5 to Subpart DDDDD of Part 63, items (1), (3), (4), (5)
(28) Table 6 to Subpart DDDDD of Part 63, items (1), (2)
(29) Table 7 to Subpart DDDDD of Part 63, items (1)(b), (2)(a), (4), (5)
(30) Table 8 to Subpart DDDDD of Part 63, items (4), (5), (7), (8), (9), (10)
(31) Table 9 to Subpart DDDDD of Part 63
(32) Table 10 to Subpart DDDDD of Part 63

(c) Cleaver Brooks Boiler (LA-46):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)

(5) 40 CFR 63.7499(l)
(6) 40 CFR 63.7500(a)(1), (a)(3), (b), (e), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a)
(9) 40 CFR 63.7515(d)
(10) 40 CFR 63.7530(d), (e), (f)
(11) 40 CFR 63.7540(a)(10), (a)(13), (b)
(12) 40 CFR 63.7545(a), (b), (e)(1), (e)(8), (f), (h)
(13) 40 CFR 63.7550(a), (b), (c)(1), (c)(5)(i)-(iv), (c)(5)(xiv), (h)(1), (h)(3)
(14) 40 CFR 63.7555(a), (h), (i), (j)
(15) 40 CFR 63.7560
(16) 40 CFR 63.7565
(17) 40 CFR 63.7570
(18) 40 CFR 63.7575
(19) Table 3 to Subpart DDDDD of Part 63, items (3), (4)
(20) Table 9 to Subpart DDDDD of Part 63
(21) Table 10 to Subpart DDDDD of Part 63

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Tate & Lyle, Lafayette South
Source Address: 3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address: 2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.: T157-6008-00033

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Tate & Lyle, Lafayette South
Source Address:	3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address:	2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.:	T157-6008-00033

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe: Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Tate & Lyle, Lafayette South
Source Address: 3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address: 2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.: T157-6008-00033

☐ Natural Gas Only
☐ Alternate Fuel burned
From:_____ To:_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

Part 70 Quarterly Report

Source Name: Tate & Lyle, Lafayette South
Source Address: 3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address: 2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.: T157-6008-00033
Facility: LA-75
Parameter: Amount of steam vented (pounds per 12 consecutive month period)
Limit: 21,000,000 pounds per 12 consecutive month period with compliance determined for the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Tate & Lyle, Lafayette South
Source Address: 3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address: 2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.: T157-6008-00033
Facility: LA-8, LA-17A, LA-46, LA-47 and LA-28.
Parameter: Sulfur dioxide emissions
Limit: 0.5 pounds per MMBtu of heat input

Month: _____ **Year:** _____

Month	Sulfur Content (%)	Heat Content	Fuel usage (gal/month)	SO_2 Emissions (lb/MMBTU)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Tate & Lyle, Lafayette South
Source Address: 3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address: 2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.: T157-6008-00033
Facility: LA-45
Parameter: Sulfur dioxide emissions (pounds per MMBtu of heat input)
Limit: 6.0 pounds per MMBtu of heat input

Month: _____ **Year:** _____

Month	Sulfur Content (%)	Heat Content	Fuel usage (gal/month)	SO_2 Emissions (lb/MMBTU)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Tate & Lyle, Lafayette South
Source Address: 3300 U.S. 52 South, Lafayette, Indiana, 47905
Mailing Address: 2200 East Eldorado Street, Decatur, Illinois 62525
Part 70 Permit No.: T157-6008-00033

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Attachment A
to Part 70 Operating Permit No. T157-6008-00033

[Downloaded from the eCFR on May 10, 2013]

40 CFR Part 63, Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Source: 76 FR 15664, Mar. 21, 2011, unless otherwise noted.

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

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

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491. For purposes of this subpart, a major source of HAP is as defined in § 63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in § 63.7575.

[78 FR 7162, Jan. 31, 2013]

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in § 63.7575, located at a major source.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after June 4, 2010, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

(e) An existing electric utility steam generating unit (EGU) that meets the applicability requirements of this subpart after the effective date of this final rule due to a change (e.g., fuel switch) is considered to be an existing source under this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.

(a) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part.

(b) A recovery boiler or furnace covered by subpart MM of this part.

(c) A boiler or process heater that is used specifically for research and development, including test steam boilers used to provide steam for testing the propulsion systems on military vessels. This does not include units that provide heat or steam to a process at a research and development facility.

(d) A hot water heater as defined in this subpart.

(e) A refining kettle covered by subpart X of this part.

(f) An ethylene cracking furnace covered by subpart YY of this part.

(g) Blast furnace stoves as described in EPA-453/R-01-005 (incorporated by reference, see § 63.14).

(h) Any boiler or process heater that is part of the affected source subject to another subpart of this part, such as boilers and process heaters used as control devices to comply with subparts JJJ, OOO, PPP, and U of this part.

(i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler or process heater is provided by regulated gas streams that are subject to another standard.

(j) Temporary boilers as defined in this subpart.

(k) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

(l) Any boiler specifically listed as an affected source in any standard(s) established under section 129 of the Clean Air Act.

(m) A unit that burns hazardous waste covered by Subpart EEE of this part. A unit that is exempt from Subpart EEE as specified in § 63.1200(b) is not covered by Subpart EEE.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

EDITORIAL NOTE: At 78 FR 7162, Jan. 31, 2013, § 63.7491 was amended by revising paragraph (n). However, there is no paragraph (n) to revise.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by January 31, 2013, or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing source must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing source must be in compliance with this subpart within 3 years after the source becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

(e) If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in § 63.7491(l) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart on the effective date of the switch from waste to fuel.

(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart on the effective date such unit becomes subject to this subpart.

(g) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for a exemption in § 63.7491(i) that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart within 3 years after such unit becomes subject to this subpart.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7162, Jan. 31, 2013]

EDITORIAL NOTE: At 78 FR 7162, Jan. 31, 2013, § 63.7495 was amended by adding paragraph (e). However, there is already a paragraph (e).

Emission Limitations and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

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

(a) Pulverized coal/solid fossil fuel units.

(b) Stokers designed to burn coal/solid fossil fuel.

(c) Fluidized bed units designed to burn coal/solid fossil fuel.

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

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

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

(g) Fuel cells designed to burn biomass/bio-based solid.

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

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

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

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

(l) Units designed to burn gas 1 fuels.

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

(n) Metal process furnaces.

(o) Limited-use boilers and process heaters.

(p) Units designed to burn solid fuel.

(q) Units designed to burn liquid fuel.

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

(s) Fluidized bed units with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel.

(t) Units designed to burn heavy liquid fuel.

(u) Units designed to burn light liquid fuel.

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

§ 63.7500 What emission limitations, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.

(1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate steam. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate electricity. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (a)(1)(iii) of this section, but on or after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

(i) If your boiler or process heater commenced construction or reconstruction after June 4, 2010 and before May 20, 2011, you may comply with the emission limits in Table 1 or 11 to this subpart until January 31, 2016.

(ii) If your boiler or process heater commenced construction or reconstruction after May 20, 2011 and before December 23, 2011, you may comply with the emission limits in Table 1 or 12 to this subpart until January 31, 2016.

(iii) If your boiler or process heater commenced construction or reconstruction after December 23, 2011 and before January 31, 2013, you may comply with the emission limits in Table 1 or 13 to this subpart until January 31, 2016.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit or an alternative monitoring parameter, you must apply to the EPA Administrator for approval of alternative monitoring under § 63.8(f).

(3) At all times, you must operate and maintain any affected source (as defined in § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in § 63.7540. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart.

(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in § 63.7540.

(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 to this subpart.

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

§ 63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.

In response to an action to enforce the standards set forth in § 63.7500 you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in § 63.7500 of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[78 FR 7163, Jan. 31, 2013]

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times the affected unit is operating except for the periods noted in § 63.7500(f).

(b) [Reserved]

(c) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to § 63.7530(c) is less than the applicable emission limit. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance testing, if subject to an applicable emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of CPMS), or with a CEMS, or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of

any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in § 63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of § 63.7525. Using the process described in § 63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c) (as applicable in Table 10 to this subpart), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7164, Jan. 31, 2013]

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For each boiler or process heater that is required or that you elect to demonstrate compliance with any of the applicable emission limits in Tables 1 or 2 or 11 through 13 of this subpart through performance testing, your initial compliance requirements include all the following:

(1) Conduct performance tests according to § 63.7520 and Table 5 to this subpart.

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, except as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For each boiler or process heater that burns a single type of fuel, you are not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart. For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame

stability purposes still qualify as units that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under § 63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those gaseous fuels are subject to another subpart of this part, part 60, part 61, or part 65, you are not required to conduct a fuel analysis of those fuels according to § 63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a)(2)(i) and (ii) of this section.

(3) Establish operating limits according to § 63.7530 and Table 7 to this subpart.

(4) Conduct CMS performance evaluations according to § 63.7525.

(b) For each boiler or process heater that you elect to demonstrate compliance with the applicable emission limits in Tables 1 or 2 or 11 through 13 to this subpart for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart. The fuels described in paragraph (a)(2)(i) and (ii) of this section are exempt from these fuel analysis and operating limit requirements. The fuels described in paragraph (a)(2)(ii) of this section are exempt from the chloride fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or HCl are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section for the HAP for which CEMS are used.

(c) If your boiler or process heater is subject to a carbon monoxide (CO) limit, your initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 to this subpart or conduct a performance evaluation of your continuous CO monitor, if applicable, according to § 63.7525(a). Boilers and process heaters that use a CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 12, or 11 through 13 to this subpart, as specified in § 63.7525(a), are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.

(d) If your boiler or process heater is subject to a PM limit, your initial compliance demonstration for PM is to conduct a performance test in accordance with § 63.7520 and Table 5 to this subpart.

(e) For existing affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section.

(f) For new or reconstructed affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration with the emission limits no later than July 30, 2013 or within 180 days after startup of the source, whichever is later. If you are demonstrating compliance with an emission limit in Tables 11 through 13 to this subpart that is less stringent (that is, higher) than the applicable emission limit in Table 1 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than July 29, 2016.

(g) For new or reconstructed affected sources (as defined in § 63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in § 63.7540(a) following the initial compliance date specified in § 63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in § 63.7540(a).

(h) For affected sources (as defined in § 63.7490) that ceased burning solid waste consistent with § 63.7495(e) and for which the initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(i) For an existing EGU that becomes subject after January 31, 2013, you must demonstrate compliance within 180 days after becoming an affected source.

(j) For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495.

[78 FR 7164, Jan. 31, 2013]

§ 63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of this section. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of this section.

(b) If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 13 to this subpart, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to demonstrate compliance using emission averaging under § 63.7522, you must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.

(c) If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2 or 11 through 13 to this subpart) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Tables 1 and 2 or 11 through 13 to this subpart).

(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(e) If you demonstrate compliance with the mercury, HCl, or TSM based on fuel analysis, you must conduct a monthly fuel analysis according to § 63.7521 for each type of fuel burned that is subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart. You may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your

boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, you may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or you begin burning a new type of fuel, you must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level.

(f) You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests must include all applicable information required in § 63.7550.

(g) For affected sources (as defined in § 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Tables 1, 2, or 11 through 13 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(h) If your affected boiler or process heater is in the unit designed to burn light liquid subcategory and you combust ultra low sulfur liquid fuel, you do not need to conduct further performance tests if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 or 2 of this subpart providing you demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. If you intend to use a fuel other than ultra low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, you must conduct new performance tests within 60 days of burning the new fuel type.

(i) If you operate a CO CEMS that meets the Performance Specifications outlined in § 63.7525(a)(3) of this subpart to demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you are not required to conduct CO performance tests and are not subject to the oxygen concentration operating limit requirement specified in § 63.7510(a).

[78 FR 7165, Jan. 31, 2013]

§ 63.7520 What stack tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in § 63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1 and 2 or 11 through 13 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7166, Jan. 31, 2013]

§ 63.7521 What fuel analyses, fuel specification, and procedures must I use?

(a) For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. For gas 2 (other) fuels, you must conduct fuel analyses for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. (For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 13 to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section and Table 6 to this subpart.

(b) You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section, if you are required to conduct fuel analyses as specified in § 63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or the methods listed in Table 6 to this subpart, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal one-hour intervals during the testing period for sampling during performance stack testing. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

(7) You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart, for use in Equations 7, 8, and 9 of this subpart.

(f) To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in § 63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable, except as specified in paragraph (f)(1) through (4) of this section.

(1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for natural gas or refinery gas.

(2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part, part 60, part 61, or part 65.

(3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.

(4) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gas streams directly derived from natural gas at natural gas production sites or natural gas plants.

(g) You must develop and submit a site-specific fuel analysis plan for other gas 1 fuels to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (g)(1) and (2) of this section.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (f)(1) through (3) of this section anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel specification analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.

(iv) For each anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to this subpart shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

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

(i) You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to this subpart.

[78 FR 7167, Jan. 31, 2013]

§ 63.7522 Can I use emissions averaging to comply with this subpart?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(ix) Units designed to burn heavy liquid fuel.

(x) Units designed to burn light liquid fuel.

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

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

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

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

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

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

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

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

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

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

Where:

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

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

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

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

1.1 = Required discount factor.

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

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

Where:

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

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

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

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

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

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

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

(iii) The specific control technology or pollution prevention measure to be used for each emission boiler or process heater in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple boilers or process heaters, the owner or operator must identify each boiler or process heater;

(iv) The test plan for the measurement of PM (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device consistent with § 63.7500 and Table 4, and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the Administrator, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating load conditions. Following each compliance demonstration and until the next compliance demonstration, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(3) The Administrator shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable Administrator shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing unit in the same subcategories.

(h) For a group of two or more existing affected units, each of which vents through a single common stack, you may average PM (or TSM), HCl, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing units in the same subcategories, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(j) For all other groups of units subject to the common stack requirements of paragraph (h) of this section, including situations where the exhaust of affected units are each individually controlled and then sent to a common stack, the owner or operator may elect to:

(1) Conduct performance tests according to procedures specified in § 63.7520 in the common stack if affected units from other subcategories vent to the common stack. The emission limits that the group must comply with are determined by the use of Equation 6 of this section.

$$En = \sum_{i=1}^{n} (ELi \times Hi) \div \sum_{i=1}^{n} Hi \qquad \text{(Eq. 6)}$$

Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu), parts per million (ppm), or nanograms per dry standard cubic meter (ng/dscm).

ELi = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu, ppm or ng/dscm.

Hi = Heat input from unit i, MMBtu.

(2) Conduct performance tests according to procedures specified in § 63.7520 in the common stack. If affected units and non-affected units vent to the common stack, the non-affected units must be shut down or vented to a different stack during the performance test unless the facility determines to demonstrate compliance with the non-affected units venting to the stack; and

(3) Meet the applicable operating limit specified in § 63.7540 and Table 8 to this subpart for each emissions control system (except that, if each unit venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k) The common stack of a group of two or more existing boilers or process heaters in the same subcategories subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7168, Jan. 31, 2013]

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If your boiler or process heater is subject to a CO emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must install, operate, and maintain an oxygen analyzer system, as defined in § 63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen according to the procedures in paragraphs (a)(1) through (7) of this section.

(1) Install the CO CEMS and oxygen analyzer by the compliance date specified in § 63.7495. The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler or process heater.

(2) To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart, you must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, the site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section. Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, a site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and paragraph (a) of this section must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Tables 1, 2, or 11 through 13 to this subpart.

(i) You must conduct a performance evaluation of each CO CEMS according to the requirements in § 63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B.

(ii) During each relative accuracy test run of the CO CEMS, you must be collect emission data for CO concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4. The relative accuracy testing must be at representative operating conditions.

(iii) You must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.

(iv) Any CO CEMS that does not comply with § 63.7525(a) cannot be used to meet any requirement in this subpart to demonstrate compliance with a CO emission limit listed in Tables 1, 2, or 11 through 13 to this subpart.

(v) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Complete a minimum of one cycle of CO and oxygen CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen data concurrently. Collect at least four CO and oxygen CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(4) Reduce the CO CEMS data as specified in § 63.8(g)(2).

(5) Calculate one-hour arithmetic averages, corrected to 3 percent oxygen from each hour of CO CEMS data in parts per million CO concentration. The one-hour arithmetic averages required shall be used to calculate the 30-day or 10-day rolling average emissions. Use Equation 19-19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A-7 for calculating the average CO concentration from the hourly values.

(6) For purposes of collecting CO data, operate the CO CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(7) Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to this subpart.

(b) If your boiler or process heater is in the unit designed to burn coal/solid fossil fuel subcategory or the unit designed to burn heavy liquid subcategory and has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid, and you demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. As an alternative to use of a PM CPMS to demonstrate compliance with the PM limit, you may choose to use a PM CEMS. If you choose to use a PM CEMS to demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CEMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraph (b)(5) through (8) of this section. For other boilers or process heaters, you may elect to use a PM CPMS or PM CEMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure). Owners of boilers and process heaters who elect to comply with the alternative TSM limit are not required to install a PM CPMS.

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

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

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

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

(2) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

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

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

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

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

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

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

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

(6) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

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

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

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

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

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

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

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

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

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

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

(d) If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (d)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in § 63.7535(b), and comply with the data calculation requirements specified in § 63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in § 63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in § 63.7535(c).

(5) You must record the results of each inspection, calibration, and validation check.

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(h) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber, you must meet the requirements in paragraphs (h)(1) and (2) of this section.

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

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

(i) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

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

(j) If you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (6) of this section.

(1) You must install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute PM loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(2) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see § 63.14).

(3) Use a bag leak detection system certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) Use a bag leak detection system equipped with a device to record continuously the output signal from the sensor.

(5) Use a bag leak detection system equipped with a system that will alert plant operating personnel when an increase in relative PM emissions over a preset level is detected. The alert must easily recognizable (e.g., heard or seen) by plant operating personnel.

(6) Where multiple bag leak detectors are required, the system's instrumentation and alert may be shared among detectors.

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

(l) For each unit for which you decide to demonstrate compliance with the mercury or HCl emissions limits in Tables 1 or 2 or 11 through 13 of this subpart by use of a CEMS for mercury or HCl, you must install, certify, maintain, and operate a CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (l)(1) through (8) of this section. For HCl, this option for an affected unit takes effect on the

date a final performance specification for a HCl CEMS is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan.

(1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.

(2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in § 63.7540(a)(14) for a mercury CEMS and § 63.7540(a)(15) for a HCl CEMS.

(3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (l)(3)(i) through (iii) of this section.

(i) No later than July 30, 2013.

(ii) No later 180 days after the date of initial startup.

(iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (l)(4)(i) and (ii) of this section.

(i) No later than July 29, 2016.

(ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A-7, but substituting the mercury or HCl concentration for the pollutant concentrations normally used in Method 19.

(6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

(7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day and 10-day rolling average emissions.

(8) You are allowed to substitute the use of the PM, mercury or HCl CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the PM, mercury or HCl emissions limit, and if you are using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, you are allowed to substitute the use of a sulfur dioxide (SO_2) CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with HCl emissions limit.

(m) If your unit is subject to a HCl emission limit in Tables 1, 2, or 11 through 13 of this subpart and you have an acid gas wet scrubber or dry sorbent injection control technology and you use an SO_2 CEMS, you must install the monitor at the outlet of the boiler or process heater, downstream of all emission control devices, and you must install, certify, operate, and maintain the CEMS according to part 75 of this chapter.

(1) The SO_2 CEMS must be installed by the compliance date specified in § 63.7495.

(2) For on-going quality assurance (QA), the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO_2 CEMS has a span value of 30 ppm or less.

(3) For a new unit, the initial performance evaluation shall be completed no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than July 29, 2016.

(4) For purposes of collecting SO_2 data, you must operate the SO_2 CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when SO_2 data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis.

(6) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO_2 data and do not use part 75 substitute data values.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7171, Jan. 31, 2013]

§ 63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating limits, as applicable, according to § 63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart. The requirement to conduct a fuel analysis is not applicable for units that burn a single type of fuel, as specified by § 63.7510(a)(2)(i). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to § 63.7525.

(b) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (b)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of this section, as applicable, and as specified in § 63.7510(a)(2). (Note that § 63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1) You must establish the maximum chlorine fuel input (Clinput) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the fuel analysis for hydrogen chloride, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (Ci).

(iii) You must establish a maximum chlorine input level using Equation 7 of this section.

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

Where:

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

Ci = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

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

(2) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Qi) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HGi).

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

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

Where:

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

HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

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

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSMinput) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the fuel analysis for TSM, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of TSM, and the average TSM concentration of each fuel type burned (TSMi).

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

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

Where:

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

TSMi = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

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

(4) You must establish parameter operating limits according to paragraphs (b)(4)(i) through (ix) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} X_{1,i}, \bar{y} = \frac{1}{n}\sum_{i=1}^{n} Y_1 \qquad \text{(Eq. 10)}$$

Where:

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

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

n = the number of data points.

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

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

Where:

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

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

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

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

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

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

Where:

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

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

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

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

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

$$O_h = \frac{1}{n}\sum_{i=1}^{n} X_1 \qquad \text{(Eq. 13)}$$

Where:

X_1 = the PM CPMS data points for all runs i,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

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

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

Where:

30-day = 30-day average.

Hpvi = is the hourly parameter value for hour i

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

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

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

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

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

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

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

(vii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

(viii) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a SO_2 CEMS is to install and operate the SO_2 according to the requirements in § 63.7525(m) establish a maximum SO_2 emission rate equal to the highest hourly average SO_2 measurement during the most recent three-run performance test for HCl.

(c) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (c)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test described in Equation 15 of this section.

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

Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

t = t distribution critical value for 90th percentile ($t_{0.1}$) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 16 of this section must not exceed the applicable emission limit for HCl.

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

Where:

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

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

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

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 17 of this section must not exceed the applicable emission limit for mercury.

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

Where:

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

Hgi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 11 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

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

(5) To demonstrate compliance with the applicable emission limit for TSM for solid or liquid fuels, the TSM emission rate that you calculate for your boiler or process heater from solid fuels using Equation 18 of this section must not exceed the applicable emission limit for TSM.

$$Metals = \sum_{i=1}^{n} \left(TSM90i \times Qi \right) \qquad \text{(Eq. 18)}$$

Where:

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

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

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi.

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

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

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

(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in § 63.7575, you must conduct an initial fuel specification analyses according to § 63.7521(f) through (i) and according to the frequency listed in § 63.7540(c) and maintain records of the results of the testing as outlined in § 63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.

(h) If you own or operate a unit subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart, you must meet the work practice standard according to Table 3 of this subpart. During startup and shutdown, you must only follow the work practice standards according to item 5 of Table 3 of this subpart.

(i) If you opt to comply with the alternative SO_2 CEMS operating limit in Tables 4 and 8 to this subpart, you may do so only if your affected boiler or process heater:

(1) Has a system using wet scrubber or dry sorbent injection and SO_2 CEMS installed on the unit; and

(2) At all times, you operate the wet scrubber or dry sorbent injection for acid gas control on the unit consistent with § 63.7500(a)(3); and

(3) You establish a unit-specific maximum SO_2 operating limit by collecting the minimum hourly SO_2 emission rate on the SO_2 CEMS during the paired 3-run test for HCl. The maximum SO_2 operating limit is equal to the highest hourly average SO_2 concentration measured during the most recent HCl performance test.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7174, Jan. 31, 2013]

§ 63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?

(a) If you elect to comply with the alternative equivalent output-based emission limits, instead of the heat input-based limits listed in Table 2 to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using efficiency credits according to the procedures in this section. You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to § 63.7522(e) and for demonstrating monthly compliance according to § 63.7522(f). Owners or operators using this compliance approach must establish an emissions benchmark, calculate and document the efficiency credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the efficiency credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler. Additional guidance from the Department of Energy on efficiency credits is available at: *http://www.epa.gov/ttn/atw/boiler/boilerpg.html* .

(b) For each existing affected boiler for which you intend to apply emissions credits, establish a benchmark from which emission reduction credits may be generated by determining the actual annual fuel heat input to the affected boiler before initiation of an energy conservation activity to reduce energy demand (*i.e.,* fuel usage) according to paragraphs (b)(1) through (4) of this section. The benchmark shall be expressed in trillion Btu per year heat input.

(1) The benchmark from which efficiency credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source. The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

(2) Determine the starting point from which to measure progress. Inventory all fuel purchased and generated on-site (off-gases, residues) in physical units (MMBtu, million cubic feet, etc.).

(3) Document all uses of energy from the affected boiler. Use the most recent data available.

(4) Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. If possible, use actual data that are current and timely rather than estimated data.

(c) Efficiency credits can be generated if the energy conservation measures were implemented after January 1, 2008 and if sufficient information is available to determine the appropriate value of credits.

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

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

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

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

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

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

(i) The overall equation for calculating credits is:

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

Where:

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

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

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

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

(ii) [Reserved]

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

(e) The emissions rate as calculated using Equation 20 of this section from each existing boiler participating in the efficiency credit option must be in compliance with the limits in Table 2 to this subpart at all times the affected unit is operating, following the compliance date specified in § 63.7495.

(f) You must use Equation 20 of this section to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the efficiency credit compliance approach do not exceed the emission limits in Table 2 to this subpart.

$$E_{adj} = E_m \times (1 - ECredits) \quad \text{(Eq. 20)}$$

Where:

E_{adj} = Emission level adjusted by applying the efficiency credits earned, lb per million Btu steam output (or lb per MWh) for the affected boiler.

E_m = Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.

ECredits = Efficiency credits from Equation 19 for the affected boiler.

(g) As part of each compliance report submitted as required under § 63.7550, you must include documentation that the energy conservation measures implemented continue to generate the credit for use in demonstrating compliance with the emission limits.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7178, Jan. 31, 2013]

Continuous Compliance Requirements

§ 63.7535 Is there a minimum amount of monitoring data I must obtain?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see § 63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your annual report.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7179, Jan. 31, 2013]

§ 63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of

this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.

(2) As specified in § 63.7550(c), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

(i) Lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the HCl emission rate using Equation 12 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the HCl emission rate.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 12 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of § 63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in § 63.7510(a)(2)(i) through (iii).

(5) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 13 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 13 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 8 of § 63.7530 are

higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alert and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the periods which would cause an alert are no more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alert, the time corrective action was initiated and completed, and a brief description of the cause of the alert and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the conditions exist for an alert. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alert time is counted. If corrective action is required, each alert shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alert time shall be counted as the actual amount of time taken to initiate corrective action.

(8) To demonstrate compliance with the applicable alternative CO CEMS emission limit listed in Tables 1, 2, or 11 through 13 to this subpart, you must meet the requirements in paragraphs (a)(8)(i) through (iv) of this section.

(i) Continuously monitor CO according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Tables 1 or 2 or 11 through 13 to this subpart at all times the affected unit is operating.

(iii) Keep records of CO levels according to § 63.7555(b).

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

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

(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. This frequency does not apply to limited-use boilers and process heaters, as defined in § 63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(vi) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(11) If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of this section), you must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance.

(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

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

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

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

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

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40 CFR part 60, appendix B. The duration of the performance test must be the maximum of 30 unit operating days

or 720 hours. For each day in which the unit operates, you must obtain hourly HCl concentration data, and stack gas volumetric flow rate data.

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

(16) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 9 of § 63.7530. If the results of recalculating the maximum TSM input using Equation 9 of § 63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(17) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis for solid or liquid fuels, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 14 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 14 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

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

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

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

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

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

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the

CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 13 to this subpart that apply to you. These instances are deviations from the emission limits

or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must follow the sampling frequency specified in paragraphs (c)(1) through (4) of this section and conduct this sampling according to the procedures in § 63.7521(f) through (i).

(1) If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in § 63.7575, you do not need to conduct further sampling.

(2) If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification as defined in § 63.7575, you will conduct semi-annual sampling. If 6 consecutive semi-annual fuel analyses demonstrate 50 percent or less of the mercury specification, you do not need to conduct further sampling. If any semi-annual sample exceeds 75 percent of the mercury specification, you must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75 percent of the compliance level.

(3) If the initial mercury constituents are greater than 75 percent of the mercury specification as defined in § 63.7575, you will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75 percent or less of the mercury specification, you may decrease the fuel analysis frequency to semi-annual for that fuel.

(4) If the initial sample exceeds the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting this fuel is not part of the unit designed to burn gas 1 subcategory and must be in compliance with the emission and operating limits for the appropriate subcategory. You may elect to conduct additional monthly sampling while complying with these emissions and operating limits to demonstrate that the fuel qualifies as another gas 1 fuel. If 12 consecutive monthly fuel analyses samples are at or below the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting the fuel can elect to switch back into the unit designed to burn gas 1 subcategory until the mercury specification is exceeded.

(d) For startup and shutdown, you must meet the work practice standards according to item 5 of Table 3 of this subpart.

[78 FR 7179, Jan. 31, 2013]

§ 63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in § 63.7522(f) and (g).

(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) and (ii) of this section.

(i) For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii) For each group of units participating in the emissions averaging option where each unit in the group is equipped with a dry control system and vented to a common stack that does not receive emissions from non-affected units, maintain opacity at or below the applicable limit at the common stack.

(3) For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 30-day rolling average parameter values at or above the operating limits established during the most recent performance test.

(4) For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling average parameter values consistent with the approved monitoring plan.

(5) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section is a deviation.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7182, Jan. 31, 2013]

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013.

(c) As specified in § 63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8).

(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

(2) Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:

(i) Identification of whether you are complying with the PM emission limit or the alternative TSM emission limit.

(ii) Identification of whether you are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBtu or ppm) emission limits,

(3) A summary of the maximum CO emission levels recorded during the performance test to show that you have met any applicable emission standard in Tables 1, 2, or 11 through 13 to this subpart, if you are not using a CO CEMS to demonstrate compliance.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.

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

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

(ii) [Reserved]

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

(8) In addition to the information required in § 63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) “This facility complies with the required initial tune-up according to the procedures in § 63.7540(a)(10)(i) through (vi).”

(ii) “This facility has had an energy assessment performed according to § 63.7530(e).”

(iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: “No secondary materials that are solid waste were combusted in any affected unit.”

(f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

(g) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategories under this subpart.

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

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

(h) If you have switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date upon which the fuel switch or physical change occurred.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7183, Jan. 31, 2013]

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to a the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section.

(2) If a facility is complying with the fuel analysis they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (vi), (x), (xi), (xiii), (xv) and paragraph (d) of this section.

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

(4) If a facility is complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (vi), (xi), (xiii), (xv) through (xvii), and paragraph (e) of this section.

(5)(i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

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

(iv) The total operating time during the reporting period.

(v) If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with § 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 12 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 13 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 14 of § 63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of § 63.7530 or the maximum mercury input operating limit using Equation 8 of § 63.7530, or the maximum TSM input operating limit

using Equation 9 of § 63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(x) A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§ 63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§ 63.7521(f) and 63.7530(g).

(xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(xii) If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.

(xiii) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with § 63.7500(a)(3), including actions taken to correct the malfunction.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

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

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

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(d) For each deviation from an emission limit or operating limit in this subpart that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of this section.

(1) A description of the deviation and which emission limit or operating limit from which you deviated.

(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.

(e) For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of this section. This includes any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) A brief description of the source for which there was a deviation.

(9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f)-(g) [Reserved]

(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.

(1) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart and the compliance reports required in § 63.7550(b) to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, you must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator.

(2) Within 60 days after the date of completing each CEMS performance evaluation test (defined in 63.2) you must submit the relative accuracy test audit (RATA) data to the EPA's Central Data Exchange by using CEDRI as mentioned in paragraph (h)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator.

(3) You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[78 FR 7183, Jan. 31, 2013]

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vii) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each boiler or process heater subject to an emission limit in Tables 1, 2, or 11 through 13 to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (11) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) and (2) of this chapter, you must keep a record that documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1) of this chapter. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfy the definition of processing in § 241.2 of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4 of this chapter, you must keep records documenting that the material is listed as a non-waste under § 241.4(a) of this chapter. Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating.

(4) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 12 of

§ 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 13 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(6) If, consistent with § 63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 13 to this subpart, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(7) Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.

(8) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(9) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 14 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(10) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(11) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(e) If you elect to average emissions consistent with § 63.7522, you must additionally keep a copy of the emission averaging implementation plan required in § 63.7522(g), all calculations required under § 63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with § 63.7541.

(f) If you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to § 63.7533, you must keep a copy of the Implementation Plan required in § 63.7533(d) and copies of all data and calculations used to establish credits according to § 63.7533(b), (c), and (f).

(g) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by § 63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6.

(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

(i) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(j) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7185, Jan. 31, 2013]

§ 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the EPA, or an Administrator such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency, however, the EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90, and alternative analytical methods requested under § 63.7521(b)(2).

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90, and approval of alternative operating parameters under § 63.7500(a)(2) and § 63.7522(g)(2).

(5) Approval of major change to recordkeeping and reporting under § 63.10(e) and as defined in § 63.90.

[76 FR 15664, Mar. 21, 2011 as amended at 78 FR 7186, Jan. 31, 2013]

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2 (the General Provisions), and in this section as follows:

10-day rolling average means the arithmetic mean of the previous 240 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 240 hours should be consecutive, but not necessarily continuous if operations were intermittent.

30-day rolling average means the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 720 hours should be consecutive, but not necessarily continuous if operations were intermittent.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Average annual heat input rate means total heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

Bag leak detection system means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.,* baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Benchmark means the fuel heat input for a boiler or process heater for the one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

Biodiesel means a mono-alkyl ester derived from biomass and conforming to ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

Biomass or bio-based solid fuel means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue; wood products (*e.g.,* trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.,* almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total annual gas volume from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition.

Boiler system means the boiler and associated components, such as, the feed water system, the combustion air system, the fuel system (including burners), blowdown system, combustion control systems, steam systems, and condensate return systems.

Calendar year means the period between January 1 and December 31, inclusive, for a given year.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of “coal” includes synthetic fuels derived from coal, including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, governmental buildings, hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

Common stack means the exhaust of emissions from two or more affected units through a single flue. Affected units with a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

Cost-effective energy conservation measure means a measure that is implemented to improve the energy efficiency of the boiler or facility that has a payback (return of investment) period of 2 years or less.

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown or downtime.

Deviation. (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation.

Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751-11b (incorporated by reference, see § 60.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

Dutch oven means a unit having a refractory-walled cell connected to a conventional boiler setting. Fuel materials are introduced through an opening in the roof of the dutch oven and burn in a pile on its floor. Fluidized bed boilers are not part of the dutch oven design category.

Efficiency credit means emission reductions above those required by this subpart. Efficiency credits generated may be used to comply with the emissions limits. Credits may come from pollution prevention projects that result in reduced fuel use by affected units. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to implementation of the energy conservation measures identified in the energy assessment.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2012.

Electrostatic precipitator (ESP) means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is usually a dry control system.

Energy assessment means the following for the emission units covered by this subpart:

(1) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of less than 0.3 trillion Btu (TBtu) per year will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment.

(2) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of 0.3 to 1.0 TBtu/year will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 33 percent of the energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour on-site energy assessment.

(3) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity greater than 1.0 TBtu/year will be up to 24 on-site technical labor hours in length for the first TBtu/yr plus 8 on-site technical labor hours for every additional 1.0 TBtu/yr not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 20 percent of the energy (e.g., steam, process heat, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.

(4) The on-site energy use systems serving as the basis for the percent of affected boiler(s) and process heater(s) energy production in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (e.g., product X manufacturing area; product Y drying area; Building Z).

Energy management practices means the set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility.

Energy management program means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

Energy use system includes the following systems located on-site that use energy (steam, hot water, or electricity) provided by the affected boiler or process heater: process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning systems; hot water systems; building envelop; and lighting; or other systems that use steam, hot water, process heat, or electricity provided by the affected boiler or process heater. Energy use systems are only those systems using energy clearly produced by affected boilers and process heaters.

Equivalent means the following only as this term is used in Table 6 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an “as received” basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6) An equivalent pollutant (mercury, HCl) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

Fluidized bed boiler with an integrated fluidized bed heat exchanger means a boiler utilizing a fluidized bed combustion where the entire tube surface area is located outside of the furnace section at the exit of the cyclone section and exposed to the flue gas stream for conductive heat transfer. This design applies only to boilers in the unit designed to burn coal/solid fossil fuel subcategory that fire coal refuse.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

Fuel cell means a boiler type in which the fuel is dropped onto suspended fixed grates and is fired in a pile. The refractory-lined fuel cell uses combustion air preheating and positioning of secondary and tertiary air injection ports to improve boiler efficiency. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, and suspension burners are not part of the fuel cell subcategory.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas and process gases that are regulated under another subpart of this part, or part 60, part 61, or part 65 of this chapter, are exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, returned condensate, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Heavy liquid includes residual oil and any other liquid fuel not classified as a light liquid.

Hourly average means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass/bio-based solid fuel and is withdrawn for use external to the vessel. Hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 MMBtu/hr heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on demand hot water.

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Light liquid includes distillate oil, biodiesel, or vegetable oil.

Limited-use boiler or process heater means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, light liquid, heavy liquid, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, biodiesel, vegetable oil, and comparable fuels as defined under 40 CFR 261.38.

Load fraction means the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

Major source for oil and natural gas production facilities, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment, as defined in this section), and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) Emissions from processes, operations, or equipment that are not part of the same facility, as defined in this section, shall not be aggregated; and

(3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage vessels with the potential for flash emissions shall be aggregated for a major source determination. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated for a major source determination.

Metal process furnaces are a subcategory of process heaters, as defined in this subpart, which include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces.

Million Btu (MMBtu) means one million British thermal units.

Minimum activated carbon injection rate means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum oxygen level means the lowest hourly average oxygen level measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum pressure drop means the lowest hourly average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means the lowest hourly average sorbent liquid pH measured at the inlet to the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber liquid flow rate means the lowest hourly average liquid flow rate (e.g., to the PM scrubber or to the acid gas scrubber) measured according to Table 7 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum scrubber pressure drop means the lowest hourly average scrubber pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent injection rate means:

(1) The load fraction multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits; or

(2) For fluidized bed combustion, the lowest average ratio of sorbent to sulfur measured during the most recent performance test.

Minimum total secondary electric power means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum gas, as defined in ASTM D1835 (incorporated by reference, see § 63.14); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or

(4) Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler or process heater unit. It is not necessary for fuel to be combusted for the entire 24-hour period.

Other combustor means a unit designed to burn solid fuel that is not classified as a dutch oven, fluidized bed, fuel cell, hybrid suspension grate boiler, pulverized coal boiler, stoker, sloped grate, or suspension boiler as defined in this subpart.

Other gas 1 fuel means a gaseous fuel that is not natural gas or refinery gas and does not exceed a maximum concentration of 40 micrograms/cubic meters of mercury.

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler or process heater, firebox, or other appropriate location. This definition includes oxygen trim systems. The source owner or operator must install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to the combustion air controller.

Particulate matter (PM) means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Pile burner means a boiler design incorporating a design where the anticipated biomass fuel has a high relative moisture content. Grates serve to support the fuel, and underfire air flowing up through the grates provides oxygen for combustion, cools the grates, promotes turbulence in the fuel bed, and fires the fuel. The most common form of pile burning is the dutch oven.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition.

Pulverized coal boiler means a boiler in which pulverized coal or other solid fossil fuel is introduced into an air stream that carries the coal to the combustion chamber of the boiler where it is fired in suspension.

Qualified energy assessor means:

(1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:

(i) Boiler combustion management.

(ii) Boiler thermal energy recovery, including

(A) Conventional feed water economizer,

(B) Conventional combustion air preheater, and

(C) Condensing economizer.

(iii) Boiler blowdown thermal energy recovery.

(iv) Primary energy resource selection, including

(A) Fuel (primary energy source) switching, and

(B) Applied steam energy versus direct-fired energy versus electricity.

(v) Insulation issues.

(vi) Steam trap and steam leak management.

(vi) Condensate recovery.

(viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

(i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

(ii) Familiarity with operating and maintenance practices for steam or process heating systems.

(iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

(iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

(v) Boiler-steam turbine cogeneration systems.

(vi) Industry specific steam end-use systems.

Refinery gas means any gas that is generated at a petroleum refinery and is combusted. Refinery gas includes natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a refinery. Refinery gas includes gases generated from other facilities when that gas is combined and combusted in any proportion with gas generated at a refinery.

Regulated gas stream means an offgas stream that is routed to a boiler or process heater for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

Residential boiler means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm) used primarily to provide heat and/or hot water for:

(1) A dwelling containing four or fewer families; or

(2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society of Testing and Materials in ASTM D396-10 (incorporated by reference, *see* § 63.14(b)).

Responsible official means responsible official as defined in § 70.2.

Secondary material means the material as defined in § 241.2 of this chapter.

Shutdown means the cessation of operation of a boiler or process heater for any purpose. Shutdown begins either when none of the steam from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler or process heater, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler or process heater.

Sloped grate means a unit where the solid fuel is fed to the top of the grate from where it slides downwards; while sliding the fuel first dries and then ignites and burns. The ash is deposited at the bottom of the grate. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a sloped grate design.

Solid fossil fuel includes, but is not limited to, coal, coke, petroleum coke, and tire derived fuel.

Solid fuel means any solid fossil fuel or biomass or bio-based solid fuel.

Startup means either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose.

Steam output means:

(1) For a boiler that produces steam for process or heating only (no power generation), the energy content in terms of MMBtu of the boiler steam output,

(2) For a boiler that cogenerates process steam and electricity (also known as combined heat and power), the total energy output, which is the sum of the energy content of the steam exiting the turbine and sent to process in MMBtu and the energy of the electricity generated converted to MMBtu at a rate of 10,000 Btu per kilowatt-hour generated (10 MMBtu per megawatt-hour), and

(3) For a boiler that generates only electricity, the alternate output-based emission limits would be calculated using Equations 21 through 25 of this section, as appropriate:

(i) For emission limits for boilers in the unit designed to burn solid fuel subcategory use Equation 21 of this section:

$$EL_{OBE} = EL_T \times 12.7 \text{ MMBtu/Mwh} \quad \text{(Eq. 21)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(ii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal use Equation 22 of this section:

$$EL_{OBE} = EL_T \times 12.2 \text{ MMBtu/Mwh} \quad \text{(Eq. 22)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iii) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass use Equation 23 of this section:

$$EL_{OBE} = EL_T \times 13.9 \text{ MMBtu/Mwh} \quad \text{(Eq. 23)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(iv) For emission limits for boilers in one of the subcategories of units designed to burn liquid fuels use Equation 24 of this section:

$$EL_{OBE} = EL_T \times 13.8 \text{ MMBtu/Mwh} \quad \text{(Eq. 24)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(v) For emission limits for boilers in the unit designed to burn gas 2 (other) subcategory, use Equation 25 of this section:

$$EL_{OBE} = EL_T \times 10.4 \text{ MMBtu/Mwh} \quad \text{(Eq. 25)}$$

Where:

EL_{OBE} = Emission limit in units of pounds per megawatt-hour.

EL_T = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit under-grate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. This definition of stoker includes air swept stokers. There are two general types of stokers: Underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a stoker design.

Stoker/sloped grate/other unit designed to burn kiln dried biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and is not in the stoker/sloped grate/other units designed to burn wet biomass subcategory.

Stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 20 percent moisture on an annual heat input basis.

Suspension burner means a unit designed to fire dry biomass/biobased solid particles in suspension that are conveyed in an airstream to the furnace like pulverized coal. The combustion of the fuel material is completed on a grate or floor below. The biomass/biobased fuel combusted in the unit shall not exceed 20 percent moisture on an annual heat input basis. Fluidized bed, dutch oven, pile burner, and hybrid suspension grate units are not part of the suspension burner subcategory.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

Total selected metals (TSM) means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Traditional fuel means the fuel as defined in § 241.2 of this chapter.

Tune-up means adjustments made to a boiler or process heater in accordance with the procedures outlined in § 63.7540(a)(10).

Ultra low sulfur liquid fuel means a distillate oil that has less than or equal to 15 ppm sulfur.

Unit designed to burn biomass/bio-based solid subcategory includes any boiler or process heater that burns at least 10 percent biomass or bio-based solids on an annual heat input basis in combination with solid fossil fuels, liquid fuels, or gaseous fuels.

Unit designed to burn coal/solid fossil fuel subcategory includes any boiler or process heater that burns any coal or other solid fossil fuel alone or at least 10 percent coal or other solid fossil fuel on an annual heat input basis in combination with liquid fuels, gaseous fuels, or less than 10 percent biomass and bio-based solids on an annual heat input basis.

Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

Unit designed to burn gas 2 (other) subcategory includes any boiler or process heater that is not in the unit designed to burn gas 1 subcategory and burns any gaseous fuels either alone or in combination with less than 10 percent coal/solid fossil fuel, and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, and no liquid fuels. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel during periods of gas curtailment or gas supply interruption of any duration are also included in this definition.

Unit designed to burn heavy liquid subcategory means a unit in the unit designed to burn liquid subcategory where at least 10 percent of the heat input from liquid fuels on an annual heat input basis comes from heavy liquids.

Unit designed to burn light liquid subcategory means a unit in the unit designed to burn liquid subcategory that is not part of the unit designed to burn heavy liquid subcategory.

Unit designed to burn liquid subcategory includes any boiler or process heater that burns any liquid fuel, but less than 10 percent coal/solid fossil fuel and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, either alone or in combination with gaseous fuels. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year are not included in this definition. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories during periods of gas curtailment or gas supply interruption of any duration are also not included in this definition.

Unit designed to burn liquid fuel that is a non-continental unit means an industrial, commercial, or institutional boiler or process heater meeting the definition of the unit designed to burn liquid subcategory located in the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Unit designed to burn solid fuel subcategory means any boiler or process heater that burns only solid fuels or at least 10 percent solid fuel on an annual heat input basis in combination with liquid fuels or gaseous fuels.

Vegetable oil means oils extracted from vegetation.

Voluntary Consensus Standards or VCS mean technical standards (*e.g.,* materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies.

EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, *http://www.astm.org*), American Society of Mechanical Engineers (ASME ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, *http://www.asme.org*), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, *http://www.iso.org/iso/home.htm*), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 *http://www.stadards.org.au*), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, *http://www.bsigroup.com*), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, *http://www.csa.ca*), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium +32 2 550 08 11, *http://www.cen.eu/cen*), and German Engineering Standards (VDI VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, *http://www.vdi.eu*). The types of standards that are not considered VCS are standards developed by: The United States, *e.g.,* California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, *e.g.,* Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial (e.g., thermal oxidizer, kiln, furnace) or power (e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

Waste heat process heater means an enclosed device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat process heaters are also referred to as recuperative process heaters. This definition includes both fired and unfired waste heat process heaters.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

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

Table 1 to Subpart DDDDD of Part 63—Emission Limits for New or Reconstructed Boilers and Process Heaters

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.28 lb per MWh	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.0E-07 [a]lb per MMBtu of heat input	8.7E-07 [a]lb per MMBtu of steam output or 1.1E-05 [a]lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
2. Units designed to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	1.1E-03 lb per MMBtu of steam output or 1.4E-02 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 2.9E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.2E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	5.8E-01 lb per MMBtu of steam output or 6.8 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 3.7E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (4.2E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	2.2E-01 lb per MMBtu of steam output or 2.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 [a]lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 0.14 lb per MWh; or (1.1E-04 [a]lb per MMBtu of steam output or 1.2E-03 [a]lb per MWh)	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
10. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	3.1E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	330 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	3.5E-01 lb per MMBtu of steam output or 3.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	4.3E-03 lb per MMBtu of steam output or 4.5E-02 lb per MWh; or (5.2E-05 lb per MMBtu of steam output or 5.5E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 [a]lb per MMBtu of heat input)	3.0E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (5.1E-05 lb per MMBtu of steam output or 4.1E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.4 lb per MMBtu of steam output or 12 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	3.3E-02 lb per MMBtu of steam output or 3.7E-01 lb per MWh; or (5.5E-04 lb per MMBtu of steam output or 6.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	4.4E-04 lb per MMBtu of heat input	4.8E-04 lb per MMBtu of steam output or 6.1E-03 lb per MWh	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E-07 [a]lb per MMBtu of heat input	5.3E-07 [a]lb per MMBtu of steam output or 6.7E-06 [a]lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	1.5E-02 lb per MMBtu of steam output or 1.8E-01 lb per MWh; or (8.2E-05 lb per MMBtu of steam output or 1.1E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 [a]lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	1.2E-03 [a]lb per MMBtu of steam output or 1.6E-02 [a]lb per MWh; or (3.2E-05 lb per MMBtu of steam output or 4.0E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	2.5E-02 lb per MMBtu of steam output or 3.2E-01 lb per MWh; or (9.4E-04 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[c] If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before January 31, 2013, you may comply with the emission limits in Tables 11, 12 or 13 to this subpart until January 31, 2016. On and after January 31, 2016, you must comply with the emission limits in Table 1 to this subpart.

[78 FR 7193, Jan. 31, 2013]

Table 2 to Subpart DDDDD of Part 63—Emission Limits for Existing Boilers and Process Heaters

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.27 lb per MWh	For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.
	b. Mercury	5.7E-06 lb per MMBtu of heat input	6.4E-06 lb per MMBtu of steam output or 7.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	4.0E-02 lb per MMBtu of heat input; or (5.3E-05 lb per MMBtu of heat input)	4.2E-02 lb per MMBtu of steam output or 4.9E-01 lb per MWh; or (5.6E-05 lb per MMBtu of steam output or 6.5E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	160 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.14 lb per MMBtu of steam output or 1.7 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (720 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1.4 lb per MMBtu of steam output or 17 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.7E-02 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input)	4.3E-02 lb per MMBtu of steam output or 5.2E-01 lb per MWh; or (2.8E-04 lb per MMBtu of steam output or 3.4E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.7E-01 lb per MMBtu of steam output or 4.5 lb per MWh; or (4.6E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solid	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	4.6E-01 lb per MMBtu of steam output or 5.2 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-01 lb per MMBtu of heat input; or (1.2E-03 lb per MMBtu of heat input)	1.4E-01 lb per MMBtu of steam output or 1.6 lb per MWh; or (1.5E-03 lb per MMBtu of steam output or 1.7E-02 lb per MWh)	Collect a minimum of 1 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
10. Suspension burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	5.2E-02 lb per MMBtu of steam output or 7.1E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	770 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	8.4E-01 lb per MMBtu of steam output or 8.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-01 lb per MMBtu of heat input; or (2.0E-03 lb per MMBtu of heat input)	3.9E-01 lb per MMBtu of steam output or 3.9 lb per MWh; or (2.8E-03 lb per MMBtu of steam output or 2.8E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solid	a. CO	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen	2.4 lb per MMBtu of steam output or 12 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (5.8E-03 lb per MMBtu of heat input)	5.5E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (1.6E-02 lb per MMBtu of steam output or 8.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate units designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,800 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	2.8 lb per MMBtu of steam output or 31 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	4.4E-01 lb per MMBtu of heat input; or (4.5E-04 lb per MMBtu of heat input)	5.5E-01 lb per MMBtu of steam output or 6.2 lb per MWh; or (5.7E-04 lb per MMBtu of steam output or 6.3E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	1.1E-03 lb per MMBtu of heat input	1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	2.0E-06 lb per MMBtu of heat input	2.5E-06 lb per MMBtu of steam output or 2.8E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784 [b]collect a minimum of 2 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	6.2E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input)	7.5E-02 lb per MMBtu of steam output or 8.6E-01 lb per MWh; or (2.5E-04 lb per MMBtu of steam output or 2.8E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.9E-03 lb per MMBtu of heat input; or (6.2E-05 lb per MMBtu of heat input)	9.6E-03 lb per MMBtu of steam output or 1.1E-01 lb per MWh; or (7.5E-05 lb per MMBtu of steam output or 8.6E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.7E-01 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	3.3E-01 lb per MMBtu of steam output or 3.8 lb per MWh; or (1.1E-03 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 2 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 2 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[78 FR 7195, Jan. 31, 2013]

Table 3 to Subpart DDDDD of Part 63—Work Practice Standards

As stated in § 63.7500, you must comply with the following applicable work practice standards:

If your unit is . . .	You must meet the following . . .
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater	Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.

If your unit is . . .	You must meet the following . . .
2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid	Conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.
3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
4. An existing boiler or process heater located at a major source facility, not including limited use units	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

If your unit is . . .	You must meet the following . . .
5. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 13 to this subpart during startup	You must operate all CMS during startup. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, and liquefied petroleum gas.
	If you start firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, selective non-catalytic reduction (SNCR), and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose.
	You must comply with all applicable emission limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of startup, as specified in § 63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in § 63.7555.
6. An existing or new boiler or process heater subject to emission limits in Tables 1 or 2 or 11 through 13 to this subpart during shutdown	You must operate all CMS during shutdown. While firing coal/solid fossil fuel, biomass/bio-based solids, heavy liquid fuel, or gas 2 (other) gases during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, SNCR, and SCR.
	You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in § 63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in § 63.7555.

[78 FR 7198, Jan. 31, 2013]

Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters

As stated in § 63.7500, you must comply with the applicable operating limits:

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	You must meet these operating limits . . .
1. Wet PM scrubber control on a boiler not using a PM CPMS	Maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with the PM emission limitation according to § 63.7530(b) and Table 7 to this subpart.

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .	You must meet these operating limits . . .
2. Wet acid gas (HCl) scrubber control on a boiler not using a HCl CEMS	Maintain the 30-day rolling average effluent pH at or above the lowest one-hour average pH and the 30-day rolling average liquid flow rate at or above the lowest one-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the HCl emission limitation according to § 63.7530(b) and Table 7 to this subpart.
3. Fabric filter control on units not using a PM CPMS	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); or
	b. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alert is not activated more than 5 percent of the operating time during each 6-month period.
4. Electrostatic precipitator control on units not using a PM CPMS	a. This option is for boilers and process heaters that operate dry control systems (i.e., an ESP without a wet scrubber). Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average); or
	b. This option is only for boilers and process heaters not subject to PM CPMS or continuous compliance with an opacity limit (i.e., COMS). Maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(b) and Table 7 to this subpart.
5. Dry scrubber or carbon injection control on a boiler not using a mercury CEMS	Maintain the minimum sorbent or carbon injection rate as defined in § 63.7575 of this subpart.
6. Any other add-on air pollution control type on units not using a PM CPMS	This option is for boilers and process heaters that operate dry control systems. Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average).
7. Fuel analysis	Maintain the fuel type or fuel mixture such that the applicable emission rates calculated according to § 63.7530(c)(1), (2) and/or (3) is less than the applicable emission limits.
8. Performance testing	For boilers and process heaters that demonstrate compliance with a performance test, maintain the operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test.
9. Oxygen analyzer system	For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O_2analyzer system as specified in § 63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the most recent CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a).
10. SO_2CEMS	For boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO_2CEMS, maintain the 30-day rolling average SO_2emission rate at or below the highest hourly average SO_2concentration measured during the most recent HCl performance test, as specified in Table 8.

[78 FR 7199, Jan. 31, 2013]

Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements

As stated in § 63.7520, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant...	You must...	Using...
1. Filterable PM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 to part 60 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the PM emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) at 40 CFR part 60, appendix A-3 or A-6 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
2. TSM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the TSM emission concentration	Method 29 at 40 CFR part 60, appendix A-8 of this chapter
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.

To conduct a performance test for the following pollutant...	You must...	Using...
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.[a]
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the mercury emission concentration	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784.[a]
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
5. CO	a. Select the sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine oxygen concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-3 of this chapter, or ASTM D6522-00 (Reapproved 2005), or ANSI/ASME PTC 19.10-1981.[a]
	c. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	d. Measure the CO emission concentration	Method 10 at 40 CFR part 60, appendix A-4 of this chapter. Use a measurement span value of 2 times the concentration of the applicable emission limit.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7200, Jan. 31, 2013]

Table 6 to Subpart DDDDD of Part 63—Fuel Analysis Requirements

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods (as defined in § 63.7575) may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or EPA 1631 or EPA 1631E or ASTM D6323 [a](for solid), or EPA 821-R-01-013 (for liquid or solid), or ASTM D4177 [a](for liquid), or ASTM D4057 [a](for liquid), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M [a](for coal), ASTM D5198 [a](for biomass), or EPA 3050 [a](for solid fuel), or EPA 821-R-01-013 [a](for liquid or solid), or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), or ASTM D5864 [a]for liquids and other solids, or ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a], ASTM E871 [a], or ASTM D5864 [a], or ASTM D240, or ASTM D95 [a](for liquid fuels), or ASTM D4006 [a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D6722 [a](for coal), EPA SW-846-7471B [a](for solid samples), or EPA SW-846-7470A [a](for liquid samples), or equivalent.
	g. Convert concentration into units of pounds of mercury per MMBtu of heat content	Equation 8 in § 63.7530.
	h. Calculate the mercury emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 12 in § 63.7530.
2. HCl	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or ASTM D6323 [a](for coal or biomass), ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M§[a](for coal), or ASTM D5198§[a](for biomass), or EPA 3050 [a]or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), ASTM D5864, ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a]or ASTM E871 [a], or D5864 [a], or ASTM D240 [a], or ASTM D95[a](for liquid fuels), or ASTM D4006 [a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels) or equivalent.

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	f. Measure chlorine concentration in fuel sample	EPA SW-846-9250 [a], ASTM D6721 [a], ASTM D4208 [a](for coal), or EPA SW-846-5050 [a]or ASTM E776 [a](for solid fuel), or EPA SW-846-9056 [a]or SW-846-9076 [a](for solids or liquids) or equivalent.
	g. Convert concentrations into units of pounds of HCl per MMBtu of heat content	Equation 7 in § 63.7530.
	h. Calculate the HCl emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 11 in § 63.7530.
3. Mercury Fuel Specification for other gas 1 fuels	a. Measure mercury concentration in the fuel sample and convert to units of micrograms per cubic meter	Method 30B (M30B) at 40 CFR part 60, appendix A-8 of this chapter or ASTM D5954 [a], ASTM D6350 [a], ISO 6978-1:2003(E) [a], or ISO 6978-2:2003(E) [a], or EPA-1631 [a]or equivalent.
	b. Measure mercury concentration in the exhaust gas when firing only the other gas 1 fuel is fired in the boiler or process heater	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A or Method 102 at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784 [a]or equivalent.
4. TSM for solid fuels	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 [a], or ASTM D7430 [a], or ASTM D6883 [a], or ASTM D2234/D2234M [a](for coal) or ASTM D6323 [a](for coal or biomass), or ASTM D4177 [a],(for liquid fuels)or ASTM D4057 [a](for liquid fuels),or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B [a](for solid samples), EPA SW-846-3020A [a](for liquid samples), ASTM D2013/D2013M [a](for coal), ASTM D5198 [a]or TAPPI T266 [a](for biomass), or EPA 3050 [a]or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 [a](for coal) or ASTM E711 [a](for biomass), or ASTM D5864 [a]for liquids and other solids, or ASTM D240 [a]or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 [a]or ASTM E871 [a], or D5864, or ASTM D240 [a], or ASTM D95 [a](for liquid fuels), or ASTM D4006[a](for liquid fuels), or ASTM D4177 [a](for liquid fuels) or ASTM D4057 [a](for liquid fuels), or equivalent.
	f. Measure TSM concentration in fuel sample	ASTM D3683 [a], or ASTM D4606 [a], or ASTM D6357 [a]or EPA 200.8 [a]or EPA SW-846-6020 [a], or EPA SW-846-6020A [a], or EPA SW-846-6010C [a], EPA 7060 [a]or EPA 7060A [a](for arsenic only), or EPA SW-846-7740 [a](for selenium only).
	g. Convert concentrations into units of pounds of TSM per MMBtu of heat content	Equation 9 in § 63.7530.
	h. Calculate the TSM emission rate from the boiler or process heater in units of pounds per million Btu	Equations 10 and 13 in § 63.7530.

[a] Incorporated by reference, see § 63.14.

[78 FR 7201, Jan. 31, 2013]

Table 7 to Subpart DDDDD of Part 63—Establishing Operating Limits

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM, TSM, or mercury	a. Wet scrubber operating parameters	i. Establish a site-specific minimum scrubber pressure drop and minimum flow rate operating limit according to § 63.7530(b)	(1) Data from the scrubber pressure drop and liquid flow rate monitors and the PM or mercury performance test	(a) You must collect scrubber pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the lowest hourly average scrubber pressure drop and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)	i. Establish a site-specific minimum total secondary electric power input according to § 63.7530(b)	(1) Data from the voltage and secondary amperage monitors during the PM or mercury performance test	(a) You must collect secondary voltage and secondary amperage for each ESP cell and calculate total secondary electric power input data every 15 minutes during the entire period of the performance tests.
				(b) Determine the average total secondary electric power input by computing the hourly averages using all of the 15-minute readings taken during each performance test.
2. HCl	a. Wet scrubber operating parameters	i. Establish site-specific minimum pressure drop, effluent pH, and flow rate operating limits according to § 63.7530(b)	(1) Data from the pressure drop, pH, and liquid flow-rate monitors and the HCl performance test	(a) You must collect pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average pH and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(b). If different acid gas sorbents are used during the HCl performance test, the average value for each sorbent becomes the site-specific operating limit for that sorbent	(1) Data from the sorbent injection rate monitors and HCl or mercury performance test	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average of the three test run averages established during the performance test as your operating limit. When your unit operates at lower loads, multiply your sorbent injection rate by the load fraction (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
	c. Alternative Maximum SO_2 emission rate	i. Establish a site-specific maximum SO_2 emission rate operating limit according to § 63.7530(b)	(1) Data from SO_2 CEMS and the HCl performance test	(a) You must collect the SO_2 emissions data according to § 63.7525(m) during the most recent HCl performance tests.
				(b) The maximum SO_2 emission rate is equal to the lowest hourly average SO_2 emission rate measured during the most recent HCl performance tests.
3. Mercury	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to § 63.7530(b)	(1) Data from the activated carbon rate monitors and mercury performance test	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average activated carbon injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				(c) Determine the lowest hourly average established during the performance test as your operating limit. When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
4. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to § 63.7520	(1) Data from the oxygen analyzer system specified in § 63.7525(a)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests.
				(b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
5. Any pollutant for which compliance is demonstrated by a performance test	a. Boiler or process heater operating load	i. Establish a unit specific limit for maximum operating load according to § 63.7520(c)	(1) Data from the operating load monitors or from steam generation monitors	(a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test.
				(b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7203, Jan. 31, 2013]

Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance

As stated in § 63.7540, you must show continuous compliance with the emission limitations for each boiler or process heater according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.7525(c) and § 63.7535; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).
2. PM CPMS	a. Collecting the PM CPMS output data according to § 63.7525;
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average PM CPMS output data to less than the operating limit established during the performance test according to § 63.7530(b)(4).
3. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
4. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(b).
5. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pH at or above the operating limit established during the performance test according to § 63.7530(b).
6. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in § 63.7575.
7. Electrostatic Precipitator Total Secondary Electric Power Input	a. Collecting the total secondary electric power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average total secondary electric power input at or above the operating limits established during the performance test according to § 63.7530(b).
8. Emission limits using fuel analysis	a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and
	b. Reduce the data to 12-month rolling averages; and
	c. Maintain the 12-month rolling average at or below the applicable emission limit for HCl or mercury or TSM in Tables 1 and 2 or 11 through 13 to this subpart.
9. Oxygen content	a. Continuously monitor the oxygen content using an oxygen analyzer system according to § 63.7525(a). This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a)(2).
	b. Reducing the data to 30-day rolling averages; and

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the most recent CO performance test.
10. Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes.
	b. Maintaining the operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test according to § 63.7520(c).
11. SO_2emissions using SO_2CEMS	a. Collecting the SO_2CEMS output data according to § 63.7525;
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average SO_2CEMS emission rate to a level at or below the minimum hourly SO_2rate measured during the most recent HCl performance test according to § 63.7530.

[78 FR 7204, Jan. 31, 2013]

Table 9 to Subpart DDDDD of Part 63—Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (5); and	Semiannually, annually, biennially, or every 5 years according to the requirements in § 63.7550(b).
	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
	c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard during the reporting period, the report must contain the information in § 63.7550(d); and	
	d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), or otherwise not operating, the report must contain the information in § 63.7550(e)	

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013]

Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Applies to subpart DDDDD
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes. Additional terms defined in § 63.7575
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities and Circumvention	Yes.
§ 63.5	Preconstruction Review and Notification Requirements	Yes.
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c)	Compliance with Standards and Maintenance Requirements	Yes.
§ 63.6(e)(1)(i)	General duty to minimize emissions.	No. See § 63.7500(a)(3) for the general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as practicable.	No.
§ 63.6(e)(3)	Startup, shutdown, and malfunction plan requirements.	No.
§ 63.6(f)(1)	Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.	No.
§ 63.6(f)(2) and (3)	Compliance with non-opacity emission standards.	Yes.
§ 63.6(g)	Use of alternative standards	Yes.
§ 63.6(h)(1)	Startup, shutdown, and malfunction exemptions to opacity standards.	No. See § 63.7500(a).
§ 63.6(h)(2) to (h)(9)	Determining compliance with opacity emission standards	Yes.
§ 63.6(i)	Extension of compliance	Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart.
§ 63.6(j)	Presidential exemption.	Yes.
§ 63.7(a), (b), (c), and (d)	Performance Testing Requirements	Yes.
§ 63.7(e)(1)	Conditions for conducting performance tests	No. Subpart DDDDD specifies conditions for conducting performance tests at § 63.7520(a) to (c).
§ 63.7(e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§ 63.8(a) and (b)	Applicability and Conduct of Monitoring	Yes.

Citation	Subject	Applies to subpart DDDDD
§ 63.8(c)(1)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See § 63.7500(a)(3).
§ 63.8(c)(1)(ii)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(iii)	Startup, shutdown, and malfunction plans for CMS	No.
§ 63.8(c)(2) to (c)(9)	Operation and maintenance of CMS	Yes.
§ 63.8(d)(1) and (2)	Monitoring Requirements, Quality Control Program	Yes.
§ 63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan. Startup, shutdown, and malfunction plans are not required.
§ 63.8(e)	Performance evaluation of a CMS	Yes.
§ 63.8(f)	Use of an alternative monitoring method.	Yes.
§ 63.8(g)	Reduction of monitoring data	Yes.
§ 63.9	Notification Requirements	Yes.
§ 63.10(a), (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§ 63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	Yes.
§ 63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(b)(2)(iii)	Maintenance records	Yes.
§ 63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during startup, shutdown, or malfunction	No.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§ 63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§ 63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§ 63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(10) and (11)	Recording nature and cause of malfunctions, and corrective actions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(15)	Use of startup, shutdown, and malfunction plan	No.

Citation	Subject	Applies to subpart DDDDD
§ 63.10(d)(1) and (2)	General reporting requirements	Yes.
§ 63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§ 63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No. See § 63.7550(c)(11) for malfunction reporting requirements.
§ 63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§ 63.11	Control Device Requirements	No.
§ 63.12	State Authority and Delegation	Yes.
§ 63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§ 63.1(a)(5),(a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9).	Reserved	No.

[76 FR 15664, Mar. 21, 2011, as amended at 78 FR 7205, Jan. 31, 2013]

Table 11 to Subpart DDDDD of Part 63—Toxic Equivalency Factors for Dioxins/Furans

Table 11 to Subpart DDDDD of Part 63—Toxic Equivalency Factors for Dioxins/Furans

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.0003
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.3
1,2,3,7,8-pentachlorinated dibenzofuran	0.03
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1

Dioxin/furan congener	Toxic equivalency factor
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.0003

[76 FR 15664, Mar. 21, 2011]

EDITORIAL NOTE: At 78 FR 7206, Jan. 31, 2013, Table 11 was added, effective Apr. 1, 2013. However Table 11 could not be added as a Table 11 is already in existence.

Table 12 to Subpart DDDDD of Part 63—Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After June 4, 2010, and Before May 20, 2011

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
1. Units in all subcategories designed to burn solid fuel	a. Mercury	3.5E-06 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis	a. Particulate Matter	0.008 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.004 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis	a. Particulate Matter	0.0011 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 3 dscm per run.
	b. Hydrogen Chloride	0.0022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
4. Units designed to burn pulverized coal/solid fossil fuel	a. CO	90 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
5. Stokers designed to burn coal/solid fossil fuel	a. CO	7 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
6. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO	30 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
7. Stokers designed to burn biomass/bio-based solids	a. CO	560 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.005 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO	260 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.02 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
9. Suspension burners/Dutch Ovens designed to burn biomass/bio-based solids	a. CO	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
10. Fuel cells designed to burn biomass/bio-based solids	a. CO	470 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
11. Hybrid suspension/grate units designed to burn biomass/bio-based solids	a. CO	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
12. Units designed to burn liquid fuel	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	3.0E-07 lb per MMBtu of heat input	For M29, collect a minimum of 2 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
13. Units designed to burn liquid fuel located in non-continental States and territories	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 2 dscm per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.8E-07 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	51 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.
14. Units designed to burn gas 2 (other) gases	a. Particulate Matter	0.0067 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr)	Collect a minimum of 1 dscm per run.
	b. Hydrogen Chloride	0.0017 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 60 liters per run.

If your boiler or process heater is in this subcategory	For the following pollutants	The emissions must not exceed the following emission limits, except during periods of startup and shutdown	Using this specified sampling volume or test run duration
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 1 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [a]collect a minimum of 2 dscm.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	e. Dioxins/Furans	0.08 ng/dscm (TEQ) corrected to 7 percent oxygen	Collect a minimum of 4 dscm per run.

[a] Incorporated by reference, see § 63.14.

[76 FR 15664, Mar. 21, 2011]

EDITORIAL NOTE: At 78 FR 7208, Jan. 31, 2013, Table 12 was added, effective Apr. 1, 2013. However, Table 12 could not be added as a Table 12 is already in existence.

Table 13 to Subpart DDDDD of Part 63—Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After December 23, 2011, and Before January 31, 2013

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.6E-07 [a]lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
2. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.8E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
3. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-02 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
4. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
5. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
6. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
7. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 [a]lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
9. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
10. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	810 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.6E-02 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
11. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
12. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
13. Units designed to burn liquid fuel	a. HCl	1.2E-03 lb per MMBtu of heat input	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.9E-07 [a]lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 4 dscm.
14. Units designed to burn heavy liquid fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (18 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-03 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
15. Units designed to burn light liquid fuel	a. CO (or CEMS)	130 [a]ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis corrected to 3 percent oxygen, 1-day block average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 [a]lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
16. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test; or (91 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-hour rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
17. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 [b]collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

[a] If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit and you are not required to conduct testing for CEMS or CPMS monitor certification, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

[b] Incorporated by reference, see § 63.14.

[78 FR 7210, Jan. 31, 2013]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD)
for a Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	Tate & Lyle Ingredients Americas, LLC
Source Location:	3300 US 52 South, Lafayette, IN 47905
County:	Tippecanoe
SIC Code:	2046
Operation Permit No.:	T157-6008-00033
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	157-30513-00033
Significant Permit Modification No.:	157-33432-00033
Permit Reviewer:	Laura Spriggs

Public Notice Information

On November 27, 2013, the Office of Air Quality (OAQ) had a notice published in the *Journal & Courier* in Lafayette, Indiana, stating that Tate & Lyle Ingredients Americas, LLC had applied for a significant modification to their Part 70 Operating Permit issued on June 28, 2004. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments Received - Public Hearing Request

On November 24, 2013, OAQ received a comment from a citizen, William Cramer. The comment is summarized as follows, with IDEM's corresponding response.

Comment 1:

> I hereby request a public hearing over the request of Tate & Lyle to modify its Part 70 Operating Permit, as explained in your letter of Nov. 20. The basis for the request is that the continued emissions of Tate & Lyle over the past decades, although somewhat lessened in recent times, have resulted in the neighborhood around its plant being one of the most blighted in Lafayette.
>
> In the interest of the health and well-being of the residents in this area, and their property values, Tate & Lyle should be required to present a plan to substantially decrease its toxic or unpleasant emissions. It is clear that this is not a significant issue for the members of the executive board of this company, residing in a wealthy suburb of London, UK. The only hope is for IDEM to utilize its role as a protector of public health and the environment and to require Tate & Lyle to hold a public hearing during which it would have to publicly explain its plan.

IDEM Response No. 1:

> IDEM does not have legal authority to require a Permittee to present a plan for reducing emissions. However, it should be noted that this permitting action incorporates the requirements of an Administrative Consent Order between U.S. EPA and Tate & Lyle Ingredients Americas,

LLC, which requires the reduction of volatile organic compound (VOC) and carbon monoxide (CO) emissions from the process dryers at the source. Tate & Lyle Ingredients Americas, LLC has proposed to control these emissions by installing two (2) regenerative thermal oxidizers, which are to reduce VOC emissions by 95% or an outlet concentration not to exceed 10ppm and CO emissions by 90% or an outlet concentration not to exceed 100ppm.

The comment received did not specifically address a permitting or technical issue related to this permitting action and no other requests for a public hearing have been received. Therefore, IDEM did not grant the request for a public hearing. The requestor was contacted and given an opportunity to discuss the permitting action.

Comments Received - Source

On December 23, 2013, OAQ received comments from John Dent of Tate & Lyle Ingredients Americas, LLC. The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

The IDEM does not amend the Technical Support Document (TSD). The TSD is maintained to document the original review. This addendum to the TSD is used to document responses to comments and changes made from the time the permit was drafted until a final decision is made.

The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Comment No. 2

Permit Condition D.3.8, "Particulate, Sulfur Dioxide, VOC, and Carbon Monoxide Control", states:

"In order to comply with Conditions D.3.2, D.3.3, D.3.4, D.3.5, D.3.6, and D.3.7, the cyclones (including those cyclones integral to the process), multiclones, electrostatic precipitator, scrubbers, and RTOs shall be in operation and control emissions from LA-8, LA-17A, LA-17B, LA-15, LA-60, LA-47, LA-43, LA-53, LA-45 and LA-71 at all times that the facilities are in operation."

Tate & Lyle finds the term "at all times" problematic taken in the context of how some of the listed emission units must be operated during the shutdown cycle of those emission units - specifically, LA-17A (DSLC Dryer), LA-47 (GR Dryer), LA-53 (Germ RST Finish Dryer No. 3), and LA-60 (Germ RST Pre-Dryer). These dryers are all rotary steam tube dryers (RSTD).

Rotary Dryers operate by introducing wet material into one end of the dryer. The dryer rotates, moving the material down the length of the dryer. The material is dried as it moves down the dryer. The dried material is continually removed from the dryer. When a Rotary Dryer is to be shutdown, the heat source is removed, the feed is stopped and the dryer is emptied. It can take up to one hour to remove the material from the dryer. However, since the dryer is hot, any remaining material in the Rotary Dryer can be over dried, which introduces the risk of a fire starting in the dryer. To mitigate this fire risk, fresh outside air or quench air is introduced into the dryer. The amount of quench air that is introduced into the dryer exceeds the capacity of the RTO; therefore, it is necessary to bypass the RTO during the shutdown period. Since the material in the dryer is partially dry, the potential exists that the quench air will contain minimal amounts of VOC that will not be controlled by the RTO.

Tate & Lyle is requesting that language be included in this condition that defines the term "at all times" in relationship to the Rotary dryers controlled by the RTOs to allow relief during the shutdown period. In order to comply "at all times", which includes the shutdown period, additional RTO capacity would have to be installed to control a minimal amount of VOC emissions for very short periods of time.

IDEM Response 2:

The Administrative Consent Order requires that:

(a) VOC emissions from dryers LA-8. LA-17A, LA-15, LA-47, LA-53, and LA-60 shall be reduced by 95% or no higher than an outlet concentration of 10 ppm.

(b) CO emissions from dryers LA-8, LA-17A, LA-15, and LA-47 shall be reduced by 90% or no higher than an outlet concentration of 100 ppm.

No averaging time was specified with the Administrative Consent Order requirements; therefore, the Permittee must comply with the requirements at all times. In order to comply with the Administrative Consent Order requirements at all times, the RTOs must be in operation at all times that the dryers are emitting VOC and CO.

No change has been made to the permit as a result of this comment.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Laura Spriggs at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5693 or toll free at 1-800-451-6027 extension 3-5693.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	Tate & Lyle Ingredients Americas, LLC
Source Location:	3300 US 52 South, Lafayette, IN 47905
County:	Tippecanoe
SIC Code:	2046
Operation Permit No.:	T157-6008-00033
Operation Permit Issuance Date:	June 28, 2004
Significant Source Modification No.:	157-30513-00033
Significant Permit Modification No.:	157-33432-00033
Permit Reviewer:	Laura Spriggs

Existing Approvals

The source was issued Part 70 Operating Permit No. T157-6008-00033 on June 28, 2004. The source has since received the following approvals:

(a) Administrative Amendment No. 157-20549-00033, issued on March 10, 2005;

(b) Significant Source Modification No. 157-24835-00033, issued on October 24, 2007; and

(c) Significant Permit Modification No. 157-24984-00033, issued on November 30, 2007.

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Tippecanoe County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$, SO_2, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Tippecanoe County has been classified as attainment or unclassifiable in Indiana for SO2, CO, PM10, NO2, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

This source consists of a corn wet milling operation and includes fossil fuel-fired steam boilers with a combined capacity of more than two hundred fifty million (250,000,000) British thermal units per hour of heat input, which support the corn wet milling operations.

(1) The wet corn milling operation is not one of twenty-eight (28) source categories. Therefore, the fugitive emissions from the source are not counted towards determination of PSD, Emission Offset, and Part 70 Permit applicability, except as provided in (3) below.

(2) The grain elevator at the source does not meet the definition of a grain storage elevator or a grain terminal elevator, as defined in 40 CFR 60.301. Therefore, the source is not subject to 40 CFR 60, Subpart DD. Since this source does not meet the source category applicability in 40 CFR 60, Subpart DD, it is not considered a source category which, as of August 7, 1980, is regulated under section 111 or 112 of the Clean Air Act; and therefore, fugitive emissions from the grain elevator are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

(3) The fossil fuel-fired steam boilers with a total heat input rating of greater than 250 MMBtu/hr are considered one of the twenty-eight (28) source categories, based on the EPA guidance for "nested activities". Therefore, any fugitive emissions from these boilers are counted towards PSD, Emission Offset, and Part 70 Permit applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	Greater than 250
PM_{10}	Greater than 250
$PM_{2.5}$	Greater than 250
SO_2	Greater than 250
VOC	Greater than 250
CO	Less than 250
NO_X	Greater than 250
GHGs as CO_2e	Greater than 100,000
Single HAP	Greater than 10
Total HAPs	Greater than 25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 250 tons per year or more, emissions of GHGs are equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

(c) These emissions are based upon the technical support document for SPM No. 157-24984-00033 and current emission limitations. The source has stated that GHG emissions are greater than 100,000 tons per year CO2e.

Description of Proposed Modification

History

On September 9, 2008, the Office of Air Quality (OAQ) received an application (157-26990-00033) from Tate & Lyle Ingredients Americas, LLC, located at 3300 US 52 S, Lafayette, IN in Tippecanoe County, to increase the grind capacity of the plant to support a new fuel ethanol plant and to install and modify equipment to provide for VOC controls to meet the condition of a consent order between Tate & Lyle Ingredients Americas, Inc. and U.S. EPA. On May 6, 2011, Tate & Lyle Ingredients Americas, LLC submitted an application (157-30513-00033) revising the scope of the project to include only the installation of thermal oxidizers for the consent order as well as a Krystar project. The fuel ethanol project, including the increased grind capacity, was removed from the scope of the application. Subsequently the Permittee also removed the Krystar project from the scope of this permitting action. The original PSD/Significant Source Modification application (157-26990-00033) has been combined into the more recent Significant Source Modification application (157-30513-00033).

Pursuant to Administrative Consent Order (EPA-5-070113(a) IL-04), Tate & Lyle was required to submit a permit application that complies with Best Available Control Technology requirements, as defined at 40 CFR 52.21(b)(12), requesting the following BACT-level emission limits for the dryers:

(a) A 95 percent reduction of volatile organic compounds (VOC) or emissions no higher than 10 parts per million (ppm) of VOC; and

(b) A 90 percent reduction of carbon monoxide (CO) emissions or emissions no higher than 100 ppm CO.

The consent order applies to the following product dryers:

- Fiber Dryer (LA-8)
- DSLC Dryer (LA-17A)
- Gluten Dryer (LA-15)
- Germ RST Pre-Dryer (LA-60)
- GR Dryer (LA-47)
- Germ RST Finish Dryer No. 3 (LA-53)

Modification Summary

The following is a summary of the proposed modifications as part of this permitting action:

(a) RTOs

Two (2) new RTOs are proposed for controlling VOC and CO emissions from the dryers pursuant to a consent order between Tate & Lyle Ingredients Americas, Inc. and U.S. EPA. The RTOs are described as follows:

Two (2) Regenerative Thermal Oxidizers, identified as LAC-600 and LAC-601, approved in 2013 for construction, controlling VOC and CO emissions from multiple units, each with a heat input capacity of 35 MMBtu/hr natural gas, exhausting to stack 4.

(b) Germ Drying

(1) The exhaust from the existing Germ Dryer No. 3 (LA-53) will be re-routed to the existing Germ/GR Scrubber (LAC-69) for particulate and VOC control. Exhaust from scrubber LAC-69 will then be routed to one or both of the RTOs (LAC-600 and LAC-601) for additional VOC control. This is a steam tube dryer that does not generate CO emissions. The dryer is currently controlled by a product recovery cyclone and exhausts to the atmosphere via S/V 7. *Note: S/V 7 will no longer exist after implementation of the project.*

(2) The existing Germ Pre-Dryer (LA-60) will continue to exhaust to the Germ/GR Scrubber (LAC-69). The scrubber exhaust will then be routed to one or both of the RTOs (LAC-600 and LAC-601) for additional VOC control. This is a steam tube dryer that does not generate CO emissions.

(c) Gluten Meal Drying
The exhaust from the existing Gluten Meal Dryer (LA-15) will be routed to the existing Fiber Scrubber (LAC-67) for particulate, SO2, and VOC control, instead of LAC-68. The scrubber exhaust will then be routed to one or both of the RTOs (LAC-600 and LAC-601) for additional VOC control as well as CO control.

(d) Corn Fiber/Feed Drying Process

(1) The exhausts from the existing Fiber Dryer (LA-8) and the existing DSLC Dryer (LA-17A) will continue to be routed to the existing Fiber Scrubber (LAC-67) for particulate, SO2, and VOC control. The scrubber exhaust will then be routed to one or both of the RTOs (LAC-600 and LAC-601) for additional VOC control as well as CO control.

(2) The exhaust from the existing GR Dryer (LA-47) will continue to be routed to the existing Germ/GR Scrubber (LAC-69) for particulate, SO2, and VOC control. The scrubber exhaust will then be routed to one or both of the RTOs (LAC-600 and LAC-601) for additional VOC control as well as CO control.

(e) Utilities

(1) Currently, a portion of the exhaust gases from the coal-fired boiler (LA-45) is utilized as a source of heat for both the existing gluten meal and fiber dryers. This practice will be discontinued. The exhaust will continue to be routed through an electrostatic precipitator for particulate control. Additionally, the exhaust from the ESP will be routed to the existing gluten meal scrubber (to be renamed the coal boiler scrubber) (LAC-68) in order to comply with 40 CFR 63, Subpart DDDDD. The exhaust from the coal boiler scrubber will be routed to S/V 4.

(2) To facilitate the installation of the new RTOs, spent filter aid will need to be rerouted to ensure it is not introduced into the RTOs. To facilitate this, a Spent Filter Aid Aspiration System (LA-52) will be installed. This system will aspirate the Filter Aid Mixer and the Filter Aid Mixer Box Discharge Conveyor and is described as follows:

One (1) Spent Filter Aid Aspiration System, identified as LA-52, approved in 2013 for installation, with a baghouse (LAC-52) for particulate control, exhausting to stack 52, with emissions from:

(A) One (1) Filter Aid Mixer, identified as 526302.

(B) One Filter Aid Mixer Box Discharge Conveyor, identified as 566303.

(3) Additionally, the Cleaver Brooks Boiler (LA-46) no longer has the capacity to burn No. 2 Fuel Oil. The boiler is now only fueled by natural gas.

Permit Renewal
On September 26, 2008, Tate & Lyle Ingredients Americas, LLC submitted an application (157-27033-00033) to IDEM, OAQ requesting to renew its operating permit. This permitting action is pending and will proceed following the issuance of SSM No. 157-30513-00033 and SPM No. 157-33432-00033. All changes related to appealed conditions, model updates, and other changes will be reflected in the renewal. Only changes related to this permitting action will be made in SSM No. 157-30513-00033 and SPM No. 157-33432-00033.

Enforcement Issues

Pursuant to Administrative Consent Order No. EPA-5-07-113(a) IL-04, Tate & Lyle Ingredients Americas, Inc. was required to submit a permit application, complying with Best Available Control Technology requirements, as defined at 40 CFR 52.21(b)(12) for reducing VOC and CO emissions from the dryers. Tate & Lyle Ingredients Americas, LLC submitted permit application No. 157-26990-00033, which was combined into permit application No. 157-30513-00033, to meet the requirements of the consent order.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Increase in PTE Before Controls of the Modification*	
Pollutant	**Potential To Emit** (ton/yr)
PM	47.50
PM_{10}	49.21
$PM_{2.5}$	10.29
SO_2	0.18
VOC	1.65
CO	25.25
NO_X	30.06
Single HAPs	<10
Total HAPs	<25

*The emissions represent the unrestricted potential to emit of the spent filter aid aspiration system (LA-52) and the combustion emissions from the RTOs (LAC-600 and LAC-601).

This source modification is subject to 326 IAC 2-7-10.5(g) (Significant Source Modification) because the potential to emit of the modification is greater than or equal to twenty-five (25) tons per year of PM and PM10. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a Significant Permit Modification issued pursuant to 326 IAC 2-7-12(d) because the modification requires a case-by-case determination of an emission limitation, involves significant changes to existing monitoring, and incorporates applicable portions of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD) under Title I of the Clean Air Act (CAA).

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (ton/yr)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**VOC**	**CO**	**NO_X**	**GHGs**
Spent Filter Aid Aspiration System (LA-52)	1.75	1.75	1.75	--	--	--	--	--
RTO No. 1 (LAC-600) Combustion Emissions	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18,145.1
RTO No. 2 (LAC-601) Combustion Emissions	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18,145.1
Total for Modification	2.32	4.04	4.04	0.18	1.65	25.25	30.06	36, 290.1
Significant Level	25	15	10	40	40	100	40	75,000 CO_2e

*$PM_{2.5}$ listed is direct $PM_{2.5}$.
**The PM2.5 value represents the uncontrolled PTE. PM2.5 emissions will be controlled through the use of a baghouse; however, a federally enforceable limit is not being included in the permit.

(a) This modification to an existing major stationary source is not major because the emissions increase of the new units is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply to LA-52, LAC-600, and LAC-601.

(b) Since the unrestricted potential to emit of the modification is greater than the PSD Significant Levels for PM, PM10, and PM2.5, the source shall limit the potential to emit of the modification as follows:

(1) The PM emissions from the Spent Filter Aid Aspiration System (LA-52) shall be less than 0.40 lb/hr.

(2) The PM10 emissions from the Spent Filter Aid Aspiration System (LA-52) shall be less than 0.40 lb/hr.

(3) The PM2.5 emissions from the Spent Filter Aid Aspiration System (LA-52) shall be less than 0.40 lb/hr.

Compliance with the above limits, combined with the potential to emit PM, PM10, and PM2.5 from natural gas combustion at RTOs No. 1 and 2 (LAC-600 and LAC-601), shall limit the potential to emit of the modification to less than twenty-five (25) tons of PM, fifteen (15) tons of PM10, and ten (10) tons of PM2.5 per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (PSD) not applicable to LA-52, LAC-600, or LAC-601.

Administrative Consent Order Requirements

Pursuant to Administrative Consent Order No. EPA-5-070113(a) IL-04, the Permittee shall comply with the following:

(a) VOC emissions from dryers LA-8, LA-17A, LA-15, LA-47, LA-53, and LA-60 shall be reduced by 95% or no higher than an outlet concentration of 10 ppm.

(b) CO emissions from dryers LA-8, LA-17A, LA-15, and LA-47 shall be reduced by 90% or no higher than an outlet concentration of 100 ppm.

(c) The Permittee shall not use any emission reductions, achieved from the operation of the control equipment required to meet the limits in (a) and (b), for netting purposes as defined by 40 CFR 52.21(b)(3) and 326 IAC 2-2-1(ii) or for any emissions offset, banking, selling, or trading programs.

Federal Rule Applicability Determination

The following is a discussion of the federal rule applicability to the source due to this modification:

New Source Performance Standards (NSPS):

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(b) *40 CFR 63.7480, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

(1) The process dryers (LA-8, LA-15, LA-17A, LA-60, LA-47, LA-53) are not subject to the requirements of 40 CFR 63, Subpart DDDDD because they do not meet the definition of a process heater because they are direct-fired units.

(2) Boilers LA-44, LA-45, and LA-46 are subject to the requirements 40 CFR 63, Subpart DDDDD because they are boilers located at a major source of HAPs. Pursuant to 40 CFR 63.7490(d), Boilers LA-44, LA-45, and LA-46 are considered existing affected sources because they were constructed prior to June 4, 2010. The boilers are described as follows:

- One (1) natural gas/No. 2 fuel oil fired Zurn Boiler, identified as Unit ID LA-44, constructed in 1977, with a maximum heat input of 227 MMBtu/hr, with no emission control device, exhausting to stack 34.
- One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with an electrostatic precipitator for particulate control, with a scrubber (LAC-68) approved in 2013 for SO2 and HCl control, exhausting to stack 4.
- One (1) natural gas fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

Note: The boilers are not being modified as part of this modification. This federal rule applicability incorporates 40 CFR 63, Subpart DDDDD, reflecting amendments that were published in the Federal Register on January 31, 2013. Pursuant to 40 CFR 63.7495(b), the source must comply with Subpart DDDDD by January 31, 2016.

The entire rule is included as Attachment A to the permit. The applicable provisions of Subpart DDDDD are as follows:

Zurn Boiler (LA-44):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(l), (q), (u)
(6) 40 CFR 63.7500(a), (b), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a), (c)
(9) 40 CFR 63.7510(a), (b), (c), (d), (e)
(10) 40 CFR 63.7515(a), (b), (c), (d), (e), (f), (g), (h)
(11) 40 CFR 63.7520
(12) 40 CFR 63.7521(a), (b), (c), (d), (e)
(13) 40 CFR 63.7525(a)
(14) 40 CFR 63.7530(a), (b), (c), (e), (f), (h)
(15) 40 CFR 63.7533
(16) 40 CFR 63.7540(a)(1), (a)(2), (a)(3), (a)(5), (a)(10), (a)(13), (b), (d)
(17) 40 CFR 63.7545(a), (b), (d), (e), (h)
(18) 40 CFR 63.7550(a), (b), (c), (d), (h)(1), (h)(3)
(19) 40 CFR 63.7555(a), (c), (d), (f), (h), (i), (j)
(20) 40 CFR 63.7560
(21) 40 CFR 63.7565
(22) 40 CFR 63.7570
(23) 40 CFR 63.7575
(24) Table 2 to Subpart DDDDD of Part 63, items (14), (16)
(25) Table 3 to Subpart DDDDD of Part 63, items (3), (4), (5), (6)
(26) Table 4 to Subpart DDDDD of Part 63, items (7), (8), (9)
(27) Table 5 to Subpart DDDDD of Part 63, items (1), (3), (4), (5)
(28) Table 6 to Subpart DDDDD of Part 63, items (1), (2)
(29) Table 7 to Subpart DDDDD of Part 63, items (4), (5)
(30) Table 8 to Subpart DDDDD of Part 63, items (8), (9), (10)
(31) Table 9 to Subpart DDDDD of Part 63
(32) Table 10 to Subpart DDDDD of Part 63

Riley Stoker Boiler (LA-45):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(b)
(6) 40 CFR 63.7500(a), (b), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a), (c)
(9) 40 CFR 63.7510(a), (b), (c), (d), (e)
(10) 40 CFR 63.7515(a), (b), (c), (d), (e), (f), (g)
(11) 40 CFR 63.7520
(12) 40 CFR 63.7521(a), (b), (c), (d), (e)
(13) 40 CFR 63.7525(a), (e), (f), (g), (h)
(14) 40 CFR 63.7530(a), (b), (c), (e), (f), (h)
(15) 40 CFR 63.7533
(16) 40 CFR 63.7540(a)(1), (a)(2), (a)(3), (a)(5), (a)(10), (a)(13), (b), (d)
(17) 40 CFR 63.7545(a), (b), (d), (e), (h)
(18) 40 CFR 63.7550(a), (b), (c), (d), (h)(1), (h)(3)

(19) 40 CFR 63.7555(a), (c), (d), (f), (i), (j)
(20) 40 CFR 63.7560
(21) 40 CFR 63.7565
(22) 40 CFR 63.7570
(23) 40 CFR 63.7575
(24) Table 2 to Subpart DDDDD of Part 63, items (1), (2), (4)
(25) Table 3 to Subpart DDDDD of Part 63, items (3), (4), (5), (6)
(26) Table 4 to Subpart DDDDD of Part 63, items (1), (2), (7), (8), (9)
(27) Table 5 to Subpart DDDDD of Part 63, items (1), (3), (4), (5)
(28) Table 6 to Subpart DDDDD of Part 63, items (1), (2)
(29) Table 7 to Subpart DDDDD of Part 63, items (1)(b), (2)(a), (4), (5)
(30) Table 8 to Subpart DDDDD of Part 63, items (4), (5), (7), (8), (9), (10)
(31) Table 9 to Subpart DDDDD of Part 63
(32) Table 10 to Subpart DDDDD of Part 63

Cleaver Brooks Boiler (LA-46):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(l)
(6) 40 CFR 63.7500(a)(1), (a)(3), (b), (e), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a)
(9) 40 CFR 63.7515(d)
(10) 40 CFR 63.7530(d), (e), (f)
(11) 40 CFR 63.7540(a)(10), (a)(13), (b)
(12) 40 CFR 63.7545(a), (b), (e)(1), (e)(8), (f), (h)
(13) 40 CFR 63.7550(a), (b), (c)(1), (c)(5)(i)-(iv), (c)(5)(xiv), (h)(1), (h)(3)
(14) 40 CFR 63.7555(a), (h), (i), (j)
(15) 40 CFR 63.7560
(16) 40 CFR 63.7565
(17) 40 CFR 63.7570
(18) 40 CFR 63.7575
(19) Table 3 to Subpart DDDDD of Part 63, items (3), (4)
(20) Table 9 to Subpart DDDDD of Part 63
(21) Table 10 to Subpart DDDDD of Part 63

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the boilers described in this section except when otherwise specified in 40 CFR 63, Subpart DDDDD.

Compliance Assurance Monitoring (CAM)

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis							
Emission Unit / Pollutant	**Control Device Used**	**Emission Limitation or Standard** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
Spent Filter Aid Aspiration System (LA-52) / PM	Y - BH	Y	46.93	0.94	100	N	N
Spent Filter Aid Aspiration System (LA-52) / PM10	Y - BH	Y	46.93	0.94	100	N	N
Spent Filter Aid Aspiration System (LA-52) / PM2.5	Y - BH	Y	8.01	0.40	100	N	N
Gluten Meal Dryer (LA-15) / VOC	Y – RTO	Y	81.63	0.89	100	N	N
Gluten Meal Dryer (LA-15) / CO	Y - RTO	Y	43.80	4.38	100	N	N
Fiber Dryer (LA-8) and DSLC Dryer (LA-17A) / VOC	Y – RTO	Y	231.22	2.52	100	Y	N
Fiber Dryer (LA-8) and DSLC Dryer (LA-17A) / CO	Y – RTO	Y	1646.9	164.7	100	Y	Y
GR Dryer (LA-47) and Germ Pre-Dryer (LA-60) / VOC	Y – RTO	Y	474.79	2.39	100	Y	N
GR Dryer (LA-47) / CO	Y – RTO	Y	1646.9	164.7	100	Y	Y
Germ Dryer No. 3 (LA-53) / VOC	Y – RTO	Y	28.12	0.14	100	N	N

BH = Baghouse, RTO = Regenerative Thermal Oxidizer, S = Scrubber

Note: This CAM analysis is only evaluating new units and units controlled by new controls related to this modification (i.e., LA-52, LAC-600, and LAC-601 for VOC and CO only). CAM analyses for different pollutants and control devices will be evaluated in Part 70 Operating Permit Renewal No. T003-27033-00033.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to Fiber Dryer (LA-8), DSLC Dryer (LA-17A), and GR Dryer (LA-47) for CO upon start-up of the RTOs (LAC-600 and LAC-601). The Complinace Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Additionally, the requirements of 40 CFR Part 64, CAM are applicable to Fiber Dryer (LA-8), DSLC Dryer (LA-17A), GR Dryer (LA-47), and Germ Pre-Dryer (LA-60) for VOC upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

State Rule Applicability Determination

The following is a discussion of the state rule applicability to the source due to this modification:

326 IAC 2-2 (Prevention of Significant Deterioration)
PSD applicability is discussed under the Permit Level Determination – PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of LA-52 and the combustion emissions from RTOs LAC-600 and LAC-601 will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 are each greater than 250 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted by July 1, 2014, and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the Spent Filter Aid Aspiration System (LA-52) shall not exceed the pound per hour emission rate established as E in the following equations:

(a) Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(b) Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

326 IAC 8-1-6 (General Reduction Requirements for New Facilities)
The provisions of 326 8-1-6 are applicable to new facilities (as of January 1, 1980) that have potential VOC emissions of twenty-five (25) tons or more per year and that are not otherwise regulated by another provision of 326 IAC 8, 326 IAC 20-48, or 326 IAC 20-56. The Spent Filter Aid Aspiration System (LA-52) and the combustion emissions from RTOs Nos. 1 and 2 (LAC-600 and LAC-601) each have potential VOC emissions of less than twenty-five (25) tons per year. Therefore, the provisions of 326 IAC 8-1-6 are not applicable to any units as part of this modification.

326 IAC 9-1 (Carbon Monoxide Emission Limits)
The provisions of 326 IAC 9-1 are applicable to sources of carbon monoxide emissions commencing operation after March 21, 1972 and for which an emission limit has been established in 326 IAC 9-1-2. Emission limits have been established in 326 IAC 9-1-2 for petroleum refinery emissions, ferrous metal smelters, and refuse incineration and refuse burning equipment. Since there are no carbon monoxide emission limits established for the types of facilities at Tate & Lyle Ingredients Americas, LLC, the provisions of 326 IAC 9-1 are not applicable to any facilities at the source.

326 IAC 10 (Nitrogen Oxides Rules)
(a) The provisions of 326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties) are not applicable to the dryers or boilers because the source is not located in Clark or Floyd Counties.

(b) The provisions of 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories) are not applicable to the dryers or boilers because the units are not specifically identified in 326 IAC 10-3-1.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this modification are as follows:

Control Device Requirements

(a) In order to ensure compliance with the PM and PM10 PSD minor limits for LA-52, the baghouse (LAC-52) for particulate control, shall be in operation at all times LA-52 is in operation.

(b) In order to ensure compliance with the Administrative Consent Order, the RTOs (LAC-600 and LAC-601) for VOC and CO control, shall be in operation at all times dryers LA-8, LA-15, LA-17A, LA-47, LA-53, and/or LA-60 are in operation.

Testing

Summary of Testing Requirements

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
Spent Filter Aid Aspiration System (LA-52)	Baghouse (LAC-52)	Not later than 180 days after startup of LA-52	PM, PM10, PM2.5	Once every 5 years	PM: 0.40 lb/hr PM10: 0.40 lb/hr
Dryers LA-8, LA-15, LA-17A, LA-47, LA-53, LA-60	RTOs (LAC-600 and LAC-601)	No later than 180 days after startup of LAC-600 and LAC-601	VOC, CO	Once every 5 years	VOC: 95% reduction or less than 10 ppm outlet concentration CO: 90% reduction or less than 100 ppm outlet concentration

The compliance monitoring requirements applicable to this modification are as follows:

(a) Visible Emissions Notations
The Permittee shall perform daily visible emission notations of the exhaust from stack 52.

This compliance monitoring requirement is necessary because the baghouse controlling emissions from the Spent Filter Aid Aspiration System (LA-52) must operate properly to

ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and in order to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(b) RTO Temperature
The Permittee shall continuously monitor the temperature of the RTOs (LAC-600 and LAC-601 and keep records on a 3-hour average basis. Continuous means no less often than once per fifteen (15) minutes. From the date of startup until the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1,400 °F. On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperatures as observed during the latest compliant stack test.

(c) RTO Duct Pressure or Fan Amperage
The Permittee shall record the duct pressure or fan amperage of the RTOs (LAC-600 and LAC-601) at least once per day.

The compliance monitoring requirements in (b) and (c) are necessary because the RTOs controlling emissions from dryers LA-8, LA-15, LA-17A, LA-47, LA-53, and LA-60 must operate properly to ensure compliance with the requirements of the Administrative Consent Order. The compliance monitoring requirement in (b) shall also satisfy the requirements of 40 CFR 64 (CAM) for the dryers for CO.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T003-6008-00033. These changes may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Note: The Part 70 Operating Permit Renewal (T157-27033-00033) for Tate & Lyle Ingredients Americas, LLC is pending. The revisions to this permit are limited to those related to this modification. Changes to model language, appeal resolutions, and other permit changes shall be addressed in the Part 70 Operating Permit Renewal.

The following is a summary of the changes made to the permit as a result of this modification:

(a) The descriptive information for boilers LA-45 and LA-46 and for dryers LA-8, LA-15, LA-17A, LA-47, LA-53, and LA-60 has been revised to describe control device changes in Section A.2 and Section D.3 of the permit.

(b) New descriptive information has been included in Section A.2 and Section D.3 of the permit for the RTOs.

(c) New descriptive information has been included in Section A.2 and Section D.5 of the permit for the Spent Filter Aid Aspiration System.

(d) Paragraph (c)(1) of Condition D.3.2 was revised to remove scrubber LAC-68 from the limit as the limit applies to the dryers and scrubber LAC-68 will now be associated with boiler LA-45. Additionally, the equivalent emission rate was removed as the actual limit is in terms of ppm.

(e) Paragraph (b) of Condition D.3.3 was revised to remove scrubber LAC-68 since this condition applies to the dryers and scrubber LAC-68 will now be associated with boiler LA-45.

(f) Conditions D.3.5 and D.3.10 (now D.3.9) were revised to remove boiler LA-46 and its requirements as this boiler no longer has the capacity to burn No. 2 fuel oil.

(g) A new condition D.3.7 - Administrative Consent Order Requirements was added to incorporate the requirements of Administrative Consent Order No. EPA-5-070113(a) IL-04.

(h) Condition D.3.7 (now D.3.8) was revised to incorporate all the control device operation requirements. Conditions D.3.8 and D.3.9 were removed as these requirements were moved to Condition D.3.7 (now Condition D.3.8).

(i) The testing requirement in Condition D.3.12 (now D.3.11) was revised to remove scrubber LAC-68 as this scrubber will now control emissions from boiler LA-45, which has testing requirements pursuant to 40 CFR 63, Subpart DDDDD.

(j) A new testing requirement was added to Condition D.3.12 (now D.3.11) for VOC and CO testing on the RTOs in order to demonstrate compliance with the Administrative Consent Order requirements.

(k) Compliance monitoring requirements were added as Conditions D.3.19 and D.3.20 for the RTOs in order to ensure that the RTOs are working properly.

(l) The record keeping requirement in paragraph (a) of Condition D.3.20 (now D.3.21) was removed as dryer LA-15 does not have the capability of combusting No. 2 fuel oil.

(m) The record keeping requirement in paragraph (e) of Condition D.3.20 (now D.3.21) was removed as there is not a compliance monitoring requirement to measure the pressure drop across the multiclone.

(n) New record keeping requirements were added to Condition D.3.20 (now D.3.21) to correspond with the new compliance monitoring requirements for the RTOs.

(o) PSD minor limits for PM, PM10, and PM2.5 were added to Condition D.5.1 for the Spent Filter Aid Aspiration System (LA-52).

(p) LA-52 was included in Condition D.5.2 to account for its limit pursuant to 326 IAC 6-3-2.

(q) LA-52 was included in Condition D.5.6 to indicate that the baghouse for LA-52 must be in operation at all times that the unit is in operation.

(r) A new testing requirement was included in Condition D.5.8 to demonstrate compliance with the PSD minor limits for LA-52.

(s) A requirement for visible emission notation readings was included in Condition D.5.9 for LA-52 and the corresponding record keeping requirement was included in Condition D.5.16.

(t) A new Section E.1 was added to the permit to incorporate the requirements of 40 CFR 63, Subpart DDDDD for boilers LA-44, LA-45, and LA-46. The entire rule is included as Attachment A to the permit.

The permit has been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices: (Note that the maximum process capacities of these units have been included in an OAQ file that is being treated as confidential until a determination has been made):

(a) * * *
(b) * * *
(c) Feed House and Boiler House Area, consisting of:

(1) * * *

(2) One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with a multiclone and an electrostatic precipitator for **particulate** control, **with a scrubber (LAC-68) approved in 2013 for particulate, SO2 and HCl control,** exhausting to stack 4.

(3) One (1) natural gas~~/No. 2 fuel oil~~ fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

(4) One (1) natural gas/No. 2 fuel oil **direct** fired Fiber ~~Pre-~~Dryer, identified as Unit ID LA-8, constructed in 1977 **(modified in 1995 and 2004)**, with a maximum heat input of 58 MMBtu/hr, with an integral product collector/cyclone **providing particulate control, with**~~ and~~ a scrubber (~~ID~~ LA**C**-67) for **particulate, SO2, and VOC** control, **with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(5) One (1) natural gas/No. 2 fuel oil **direct** fired DSLC Dryer, identified as Unit ID LA-17A, constructed in 1977 **(modified in 1995 and 2007)**, with a maximum heat input of 45 MMBtu/hr, with ~~a scrubber (ID LA-67) and~~ an integral product collector/cyclone **providing particulate** control, **with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(6) One (1) natural gas **direct** fired Gluten Dryer, identified as Unit ID LA-15, constructed in 1995, with a maximum heat input of 52 MMBtu/hr, **using low NOx burners, with an integral product collector/cyclone providing particulate control,** with a scrubber (~~ID~~ LA**C**-6~~8~~**7**) **for particulate, SO2, and VOC control**, **with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601)**~~an integral product collector/cyclone and Low NOx Burner for control~~, exhausting to stack 4.

(7) One (1) Germ RST Pre-Dryer, identified as Unit ID LA-60, constructed in 1995, with an integral product collector/cyclone **providing particulate control,**~~ and~~ **with** a scrubber (~~ID~~ LA**C**-69) for **particulate, SO2, and VOC** control, **with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(8) One (1) natural gas/No. 2 fuel oil **direct** fired GR Dryer, identified as Unit ID LA-47, constructed in 1980 **(modified in 1995)**, with a maximum heat input of 55 MMBtu/hr, with an integral product collector/cyclone **providing particulate control, with**~~ and~~ a scrubber (~~ID~~ LA**C**-69) for **particulate and VOC** control, **with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(9) One (1) Germ RST Finish Dryer No.3, identified as Unit ID LA-53, constructed in 1991 **(modified in 1995)**, with a cyclone (not integral) for **particulate** control, **with a scrubber (LAC-69) for particulate and VOC control, with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack **4**~~7~~.

(10) * * *

(11) * * *

(12) * * *

(13) Two (2) Regenerative Thermal Oxidizers, identified as LAC-600 and LAC-601, approved in 2013 for construction, controlling VOC and CO emissions from multiple units, each with a heat input capacity of 35 MMBtu/hr natural gas, exhausting to stack 4.

(d) * * *

(e) Refinery Area, consisting of:

* * *

(16) One (1) Spent Filter Aid Aspiration System, identified as LA-52, approved in 2013 for installation, with a baghouse (LAC-52) for particulate control, exhausting to stack 52, with emissions from:

(A) One (1) Filter Aid Mixer, identified as 526302.

(B) One Filter Aid Mixer Box Discharge Conveyor, identified as 566303.

* * *

* * * * *

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(c) Feed House and Boiler House Area, consisting of:

(1) * * *

(2) One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with a multiclone and an electrostatic precipitator for **particulate** control, **with a scrubber (LAC-68) approved in 2013 for particulate, SO2 and HCl control,** exhausting to stack 4.

(3) One (1) natural gas~~/No. 2 fuel oil~~ fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

(4) One (1) natural gas/No. 2 fuel oil **direct** fired Fiber ~~Pre-~~Dryer, identified as Unit ID LA-8, constructed in 1977 **(modified in 1995 and 2004)**, with a maximum heat input of 58 MMBtu/hr, with an integral product collector/cyclone **providing particulate control, with** ~~and~~ a scrubber (~~ID~~ LA**C**-67) for **particulate, SO2, and VOC** control, **with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(5) One (1) natural gas/No. 2 fuel oil **direct** fired DSLC Dryer, identified as Unit ID LA-17A, constructed in 1977 **(modified in 1995 and 2007)**, with a maximum heat input of 45 MMBtu/hr, with ~~a scrubber (ID LA-67) and~~ an integral product collector/cyclone ~~for~~**providing particulate** control, **with a scrubber (LAC-67) for particulate, SO2, and VOC control, with VOC and Co emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(6) One (1) natural gas **direct** fired Gluten Dryer, identified as Unit ID LA-15, constructed in 1995, with a maximum heat input of 52 MMBtu/hr, **using low NOx burners, with an integral product collector/cyclone providing particulate control,** with a scrubber (~~ID~~ LA**C**-68~~7~~) **for particulate, SO2, and VOC control, with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601)**~~, an integral product collector/cyclone and Low NO_x Burner for control~~, exhausting to stack 4.

(7) One (1) Germ RST Pre-Dryer, identified as Unit ID LA-60, constructed in 1995, an integral product collector/cyclone **providing particulate control, with** ~~and~~ a scrubber (~~ID~~ LA**C**-69) for **particulate, SO2, and VOC** control, **with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(8) One (1) natural gas/No. 2 fuel oil **direct** fired GR Dryer, identified as Unit ID LA-47, constructed in 1980 **(modified in 1995)**, with a maximum heat input of 55 MMBtu/hr, with an integral product collector/cyclone **providing particulate control, with** ~~and~~ a scrubber (~~ID~~ LA**C**-69) for **particulate and VOC** control, **with VOC and CO emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack 4.

(9) One (1) Germ RST Finish Dryer No.3, identified as Unit ID LA-53, constructed in 1991 **(modified in 1995)**, with a cyclone (not integral) for **particulate** control, **with a scrubber (LAC-69) for particulate and VOC control, with VOC emissions also controlled by one (1) or both RTOs (LAC-600 and LAC-601),** exhausting to stack ~~7~~**4**.

(10) * * *
(11) * * *
(12) * * *
(13) Two (2) Regenerative Thermal Oxidizers, identified as LAC-600 and LAC-601, approved in 2013 for construction, controlling VOC and CO emissions from multiple units, each with a heat input capacity of 35 MMBtu/hr natural gas, exhausting to stack 4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 CO Emissions [326 IAC 2-2] [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

* * *

D.3.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

(a) * * *
(b) * * *
(c) Pursuant to SSM 157-11449-00033, issued August 16, 2000, and CP 157-3581-00033, issued February 27, 1995:

(1) The concentration of sulfur dioxide in the exhaust from scrubbers LA**C**-67~~, LA-68,~~ and LA**C**-69 (controlling emissions from LA-8, LA-17A, LA-15, LA-47 and LA-60 shall not exceed 187 parts per million (ppm). ~~Based on a total exhaust flow rate of 353,600 acfm at 138°F, compliance with this limit is equivalent to total SO_2 emissions of less than 582 pounds per hour and 2,549 tons per year.~~

(2) * * *

(d) * * *
(e) * * *

D.3.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) * * *
(b) Pursuant to AA 157-16939-00033 issued on March 25, 2003 and SSM 157-11449-00033 issued on August 16, 2000 particulate matter emissions from LA**C**-67~~, LA-68~~ and LA**C**-69 (controlling emissions from LA-8, LA-17A, LA-15, LA-47 and LA-60) shall be limited to a

total of 61.12 pounds per hour after controls. Compliance with this limit will satisfy 326 IAC 6-3-2.

D.3.4 Particulate Matter (Sources of Indirect Heating) [326 IAC 6-2-3(e)]

* * *

D.3.5 Sulfur Dioxide [326 IAC 7-1.1-2] [326 IAC 7-2-1]

(a) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide (SO_2) emissions from LA-8, LA-17A, ~~LA-46~~ and LA-47 shall each not exceed 0.5 pounds per MMBtu heat input when combusting #2 fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

(b) * * *

~~(c) The sulfur content of the fuel oil combusted in LA-46 shall not exceed forty-five hundredths percent (0.45 %). Compliance with this limit is equivalent to SO_2 emissions of 0.5 pounds per MMBtu, will satisfy the requirements of 326 IAC 7-1.1, and will ensure compliance with Condition D.3.1(b)(4).~~

D.3.6 Volatile Organic Compounds - BACT [326 IAC 8-1-6]

* * *

D.3.7 Administrative Consent Order Requirements

Pursuant to SSM 157-30513-00033 and as required by Administrative Consent Order No. EPA-5-070113(a) IL-04, the Permittee shall comply with the following:

(a) VOC emissions from dryers LA-8, LA-17A, LA-15, LA-47, LA-53, and LA-60 shall be reduced by 95% or no higher than an outlet concentration of 10 ppm.

(b) CO emissions from dryers LA-8, LA-17A, LA-15, and LA-47 shall be reduced by 90% or no higher than an outlet concentration of 100 ppm.

(c) The Permittee shall not use any emission reductions, achieved from the operation of the control equipment required to meet the limits in (a) and (b), for netting purposes as defined by 40 CFR 52.21(b)(3) and 326 IAC 2-2-1(ii) or for any emissions offset, banking, selling, or trading programs.

Compliance Determination Requirements

D.3.~~7~~**8** Particulate, Sulfur Dioxide, ~~and~~ VOC**, and Carbon Monoxide** Control

In order to comply with Conditions D.3.2, D.3.3, **D.3.4,** D.3.5, ~~and~~ D.3.6**, and D.3.7**, the cyclones **(including those cyclones integral to the process), multiclones, electrostatic precipitator,** ~~and~~ scrubbers, **and RTOs** ~~including those cyclones integral to the process,~~ shall be in operation and control emissions from LA-8, LA-17A, LA-17B, LA-15, LA-60, LA-47, LA-43**,** ~~and~~ LA-53**, LA-45 and LA-71** at all times that the facilities are in operation.

~~D.3.8 Operation of Electrostatic Precipitator [326 IAC 2-7-6(6)]~~

~~Except as otherwise provided by statute or rule or in this permit, the electrostatic precipitator (ESP) shall be operated at all times that the boiler LA-45 vented to the ESP is in operation.~~

~~D.3.9 Operation of Multiclone [326 IAC 2-7-6(6)]~~

~~Except as otherwise provided by statute or rule or in this permit, the multiclone shall be operated at all times that the boiler LA-45 vented to the multiclone is in operation.~~

D.3.~~10~~**9** Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.3.5 shall be determined pursuant to 326 IAC 3-7-4. The Permittee shall demonstrate that the sulfur dioxide emissions from LA-8 **and**~~,~~ LA-17A~~ and LA-46~~ do not exceed five-tenths (0.5) pound per million Btu heat input when combusting #2 fuel oil by:

* * *

D.3.~~11~~**10** Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(3)(A)] [326 IAC 2-7-6]

In order to demonstrate compliance with Condition D.3.~~4~~**5**(b) and pursuant to 326 IAC 7-2, the Permittee shall demonstrate that the sulfur dioxide emissions from LA-45 do not exceed six (6.0) pounds per MMBtu when combusting coal. Compliance shall be determined utilizing the following options:

* * *

D.3.~~12~~**11** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Pursuant to SSM 157-11449-00033, issued August 16, 2000, the Permittee shall perform PM, PM_{10}, VOC, and SO_2 testing on LA**C**-67~~, LA-68,~~ and LA**C**-69 no later than May 19, 2008, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. If PM-10 is assumed to be 100% of PM, only PM tests need be performed. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) Not later than 180 days after the startup of RTOs (LAC-600 and LAC-601), in order to demonstrate compliance with Condition D.3.7, the Permittee shall perform VOC and CO testing on the RTOs controlling dryers LA-8, LA-17A, LA-15, LA-47, LA-53, and LA-60 utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.~~13~~**12** Visible Emissions Notations

* * *

D.3.~~14~~**13** Cyclone Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

* * *

D.3.~~15~~**14** Scrubber Monitoring

(a) The Permittee shall monitor the pH of the recycled water from scrubbers LA**C**-67, LA**C**-68, and LA**C**-69 at least once per hour during normal operation. The pH shall not be less than 5.0 for any one reading and not less than 7.0 based on a twelve-reading average determined at least once per day.

(b) * * *

(c) The Permittee shall monitor the scrubbant flow rate of the gaseous and particulate sections of scrubber LA**C**-67 at least once per hour during normal operation. The scrubbant flow rates for the gaseous and particulate sections of LA**C**-67 shall not average less than 1000 gallons per minute and 200 gallons per minute, respectively, based on a twelve-reading average determined at least once per day.

(d) The Permittee shall monitor the scrubbant flow rate of scrubber LA**C**-68 at least once per hour during normal operation. The scrubbant flow rates shall not average less than 200 gallons per minute based on a twelve-reading average determined at least once per day.

(e) The Permittee shall monitor the scrubbant flow rate of the gaseous and particulate sections of scrubber LA**C**-69 at least once per hour during normal operation. The scrubbant flow rates for the gaseous and particulate sections of LA**C**-69 shall not average less than 500 gallons per minute and 100 gallons per minute, respectively, based on a twelve-reading average determined at least once per day.

(f) * * *
(g) * * *
(h) * * *

D.3.~~16~~**15** Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

* * *

D.3.~~17~~**16** Continuous Opacity Monitoring [326 IAC 3-5]

* * *

D.3.~~18~~**17** Opacity Readings

* * *

D.3.~~19~~**18** Method 9 Opacity Readings and Visible Emissions Notations

* * *

D.3.19 RTO Temperature [40 CFR 64]

(a) Continuous monitoring systems shall be calibrated, maintained, and operated on the RTOs (LAC-600 and LAC-601) for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1,400°F.

(b) The Permittee shall determine the 3-hour average temperatures from the latest valid stack test that demonstrates compliance with limits in Condition D.3.7.

(c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperatures as observed during the latest compliant stack test.

(d) If the 3-hour average temperature falls below the above mentioned 3-hour average temperature, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. A 3-hour average temperature reading below the above mentioned 3-hour average temperature is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.3.20 Parametric Monitoring - RTO Duct Pressure or Fan Amperage

(a) The Permittee shall determine the appropriate duct pressure or fan amperage from the latest valid stack test that demonstrates compliance with limits in Condition D.3.7.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizers are in operation. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in latest compliant stack test.

(c) When, for any one reading, the duct pressure or fan amperage is outside the above mentioned range, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(d) The instruments used for determining the pressure drop shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.~~20~~**21** Record Keeping Requirements

~~(a) To document compliance with Condition D.3.1(b)(4), the Permittee shall maintain records of the amount of No. 2 fuel oil consumed by LA-15; these records shall be made available to the Commissioner upon request.~~

(~~b~~**a**) * * *

(~~c~~**b**) To document compliance with Condition D.3.1**2**~~3~~, the Permittee shall maintain records of the once per day visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(~~d~~**c**) To document compliance with Condition D.3.1**4**~~5~~, the Permittee shall maintain records of the:

(1) Hourly pH readings of scrubbers LA**C**-67, LA**C**-68, LA**C**-69 and LA-71;

(2) Hourly scrubbant flow rate readings of scrubbers LA**C**-67, LA**C**-68, LA**C**-69 and LA-17B;

(3) Average pH of the scrubbant of scrubbers LA**C**-67, LA**C**-68, LA**C**-69 and LA-71, determined once per shift based on twelve one-hour readings; and

(4) Average scrubbant flow rate of scrubbers LA**C**-67, LA**C**-68, LA**C**-69 and LA-71, determined once per shift based on twelve one-hour readings.

~~(e) To document compliance with Condition D.3.9, the Permittee shall record the pressure drop across the multiclone. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).~~

(~~f~~**d**) To document compliance with Conditions D.3.~~17~~**16**, D.3.~~18~~**17**, and D.3.~~19~~**18**, the Permittee shall maintain records of the continuous opacity monitoring (COM) data in accordance with 326 IAC 3-5. When the COM system is not functioning, the Permittee shall maintain the necessary records pursuant to Section C - Maintenance of Continuous Opacity Monitoring Equipment, and Response to Excursions or Exceedances. Records must be complete and sufficient to establish compliance with the limits established in this section.

(~~g~~**e**) * * *

(f) To document the compliance status with Condition D.3.19, the Permittee shall maintain continuous temperature records (on a three-hour average basis) for each thermal oxidizer (LAC-600 and LAC-601) and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(g) To document the compliance status with Condition D.3.20, the Permittee shall maintain daily records of the duct pressure or fan amperage. The Permittee shall include in its record when a reading is not taken and the reason for the lack of reading (e.g., the process did not operate that day).

(h) * * *

D.3.~~21~~**22** Reporting Requirements

* * *

* * * * *

SECTION D.5 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(e) Refinery Area, consisting of:

* * *

(16) One (1) Spent Filter Aid Aspiration System, identified as LA-52, approved in 2013 for installation, with a baghouse (LAC-52) for particulate control, exhausting to stack 52, with emissions from:

(A) One (1) Filter Aid Mixer, identified as 526302.

(B) One Filter Aid Mixer Box Discharge Conveyor, identified as 566303.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

* * *

(g) In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, emissions from the Spent Filter Aid Aspiration System (LA-52) shall be limited as follows:

(1) The PM emissions from LA-52 shall be less than 0.40 lb/hr.

(2) The PM10 emissions from LA-52 shall be less than 0.40 lb/hr.

(3) The PM2.5 emissions from LA-52 shall be less than 0.40 lb/hr.

Compliance with the above limits, combined with the potential to emit PM, PM10, and PM2.5 from the combustion of natural gas at RTOs No. 1 and 2 (LAC-600 and LAC-601), shall limit the potential to emit of the modification to less than twenty-five (25) tons of PM, fifteen (15) tons of PM10, and ten (10) tons of PM2.5 per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (PSD) not applicable to LA-52, LAC-600, or LAC-601.

D.5.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from facilities LA-29, LA-31(stack 20A), LA-31(stack 20B), LA-32, LA-28, LA-28B, ~~and~~ LA-51**, and LA-52** shall not exceed the pound per hour emission rate established as E in the following formula:

* * *

* * *

D.5.6 Particulate and Sulfur Dioxide Control

In order to comply with Conditions D.5.1 and D.5.2:

(a) The baghouses for particulate control shall be in operation and control emissions from LA-31(stack 20A), LA-31(stack 20B), LA-32**, and LA-52** at all times that the respective facilities are in operation.

* * *

D.5.7 Sulfur Dioxide Emissions and Sulfur Content

* * *

D.5.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) * * *

(b) Not later than 180 days after the startup of LA-52, in order to demonstrate compliance with Condition D.5.1(g), the Permittee shall perform PM, PM10, and PM2.5 testing of the Spent Filter Aid Aspiration System utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 include filterable and condensable PM.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.9 Visible Emissions Notations

(a) Visible emission notations of LA-29, LA-28, LA-28B, ~~and~~ LA-51**, and LA-52** stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

* * *

* * *

D.5.16 Record Keeping Requirements

(a) * * *
(b) * * *
(c) To document compliance with Condition D.5.9(a), the Permittee shall maintain records of the once per day visible emission notations of the stack exhaust from LA-29, LA-28, LA-28B, ~~and~~ LA-51**, and LA-52**. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

* * *

* * * * *

SECTION E.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(c)(1) One (1) natural gas/No. 2 fuel oil fired Zurn Boiler, identified as Unit ID LA-44, constructed in 1977, with a maximum heat input of 227 MMBtu/hr, with no emission control device, exhausting to stack 34.

(c)(2) One (1) coal fired Riley Stoker Boiler, identified as Unit ID LA-45, constructed in 1977, with a maximum heat input of 239 MMBtu/hr, with a multiclone and an electrostatic precipitator for particulate control, with a scrubber (LAC-68) approved in 2013 for particulate, SO2 and HCl control, exhausting to stack 4.

(c)(3) One (1) natural gas fired Cleaver Brooks Boiler, identified as Unit ID LA-46, constructed in 1980, with a maximum heat input of 49 MMBtu/hr, with no emission control device, exhausting to stack 4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to NESHAP, Subpart DDDDD [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.7565, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 10 of 40 CFR 63, Subpart DDDDD in accordance with the schedule in 40 CFR Part 63, Subpart DDDDD.

E.1.2 National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD] [326 IAC 20-95]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (included as Attachment A of the permit), which are incorporated by reference as 326 IAC 20-95, for the boilers no later than January 31, 2016:

(a) Zurn Boiler (LA-44):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(l), (q), (u)
(6) 40 CFR 63.7500(a), (b), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a), (c)
(9) 40 CFR 63.7510(a), (b), (c), (d), (e)
(10) 40 CFR 63.7515(a), (b), (c), (d), (e), (f), (g), (h)
(11) 40 CFR 63.7520
(12) 40 CFR 63.7521(a), (b), (c), (d), (e)
(13) 40 CFR 63.7525(a)
(14) 40 CFR 63.7530(a), (b), (c), (e), (f), (h)
(15) 40 CFR 63.7533
(16) 40 CFR 63.7540(a)(1), (a)(2), (a)(3), (a)(5), (a)(10), (a)(13), (b), (d)
(17) 40 CFR 63.7545(a), (b), (d), (e), (h)
(18) 40 CFR 63.7550(a), (b), (c), (d), (h)(1), (h)(3)
(19) 40 CFR 63.7555(a), (c), (d), (f), (h), (i), (j)
(20) 40 CFR 63.7560

(21) 40 CFR 63.7565
(22) 40 CFR 63.7570
(23) 40 CFR 63.7575
(24) Table 2 to Subpart DDDDD of Part 63, items (14), (16)
(25) Table 3 to Subpart DDDDD of Part 63, items (3), (4), (5), (6)
(26) Table 4 to Subpart DDDDD of Part 63, items (7), (8), (9)
(27) Table 5 to Subpart DDDDD of Part 63, items (1), (3), (4), (5)
(28) Table 6 to Subpart DDDDD of Part 63, items (1), (2)
(29) Table 7 to Subpart DDDDD of Part 63, items (4), (5)
(30) Table 8 to Subpart DDDDD of Part 63, items (8), (9), (10)
(31) Table 9 to Subpart DDDDD of Part 63
(32) Table 10 to Subpart DDDDD of Part 63

(b) Riley Stoker Boiler (LA-45):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(b)
(6) 40 CFR 63.7500(a), (b), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a), (c)
(9) 40 CFR 63.7510(a), (b), (c), (d), (e)
(10) 40 CFR 63.7515(a), (b), (c), (d), (e), (f), (g)
(11) 40 CFR 63.7520
(12) 40 CFR 63.7521(a), (b), (c), (d), (e)
(13) 40 CFR 63.7525(a), (e), (f), (g), (h)
(14) 40 CFR 63.7530(a), (b), (c), (e), (f), (h)
(15) 40 CFR 63.7533
(16) 40 CFR 63.7540(a)(1), (a)(2), (a)(3), (a)(5), (a)(10), (a)(13), (b), (d)
(17) 40 CFR 63.7545(a), (b), (d), (e), (h)
(18) 40 CFR 63.7550(a), (b), (c), (d), (h)(1), (h)(3)
(19) 40 CFR 63.7555(a), (c), (d), (f), (i), (j)
(20) 40 CFR 63.7560
(21) 40 CFR 63.7565
(22) 40 CFR 63.7570
(23) 40 CFR 63.7575
(24) Table 2 to Subpart DDDDD of Part 63, items (1), (2), (4)
(25) Table 3 to Subpart DDDDD of Part 63, items (3), (4), (5), (6)
(26) Table 4 to Subpart DDDDD of Part 63, items (1), (2), (7), (8), (9)
(27) Table 5 to Subpart DDDDD of Part 63, items (1), (3), (4), (5)
(28) Table 6 to Subpart DDDDD of Part 63, items (1), (2)
(29) Table 7 to Subpart DDDDD of Part 63, items (1)(b), (2)(a), (4), (5)
(30) Table 8 to Subpart DDDDD of Part 63, items (4), (5), (7), (8), (9), (10)
(31) Table 9 to Subpart DDDDD of Part 63
(32) Table 10 to Subpart DDDDD of Part 63

(c) Cleaver Brooks Boiler (LA-46):

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a)(1), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(l)
(6) 40 CFR 63.7500(a)(1), (a)(3), (b), (e), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a)

(9) 40 CFR 63.7515(d)
(10) 40 CFR 63.7530(d), (e), (f)
(11) 40 CFR 63.7540(a)(10), (a)(13), (b)
(12) 40 CFR 63.7545(a), (b), (e)(1), (e)(8), (f), (h)
(13) 40 CFR 63.7550(a), (b), (c)(1), (c)(5)(i)-(iv), (c)(5)(xiv), (h)(1), (h)(3)
(14) 40 CFR 63.7555(a), (h), (i), (j)
(15) 40 CFR 63.7560
(16) 40 CFR 63.7565
(17) 40 CFR 63.7570
(18) 40 CFR 63.7575
(19) Table 3 to Subpart DDDDD of Part 63, items (3), (4)
(20) Table 9 to Subpart DDDDD of Part 63
(21) Table 10 to Subpart DDDDD of Part 63

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 157-30513-00033 and Significant Permit Modification No. 157-33432-00033. The staff recommend to the Commissioner that this Part 70 Significant Source Modification and Significant Permit Modification by approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Laura Spriggs at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5693 or toll free at 1-800-451-6027 extension 3-5693.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Summary of New Units

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Unrestricted Potential to Emit

Unit ID	Unit	Unrestricted PTE (ton/yr)										Worst HAP
		PM	PM10	PM2.5	SO2	VOC	CO	NOx	GHGs (CO2e)	Total HAPs	Worst HAP	
LA-52	Spent Filter Aid Aspiration System	46.93	46.93	8.01	--	--	--	--	--	--	--	--
LAC-600	RTO No. 1*	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18145.05	0.28	0.27	Hexane
LAC-601	RTO No. 2*	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18145.05	0.28	0.27	Hexane
Total		47.50	49.21	10.29	0.18	1.65	25.25	30.06	36290.11	0.57	0.54	Hexane

*The RTO emissions represent combustion emissions only.

Potential to Emit After Controls

Unit ID	Unit	Controlled PTE (ton/yr)										Worst HAP
		PM	PM10	PM2.5	SO2	VOC	CO	NOx	GHGs (CO2e)	Total HAPs	Worst HAP	
LA-52	Spent Filter Aid Aspiration System	0.94	0.94	0.40	--	--	--	--	--	--	--	--
LAC-600	RTO No. 1*	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18145.05	0.28	0.27	Hexane
LAC-601	RTO No. 2*	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18145.05	0.28	0.27	Hexane
Total		1.51	3.22	2.68	0.18	1.65	25.25	30.06	36290.11	0.57	0.54	Hexane

*The RTO emissions represent combustion emissions only.

Potential to Emit After Issuance of Permit

Unit ID	Unit	Limited PTE (ton/yr)										Worst HAP
		PM	PM10	PM2.5	SO2	VOC	CO	NOx	GHGs (CO2e)	Total HAPs	Worst HAP	
LA-52	Spent Filter Aid Aspiration System**	1.75	1.75	1.75	--	--	--	--	--	--	--	--
LAC-600	RTO No. 1*	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18145.05	0.28	0.27	Hexane
LAC-601	RTO No. 2*	0.29	1.14	1.14	0.09	0.83	12.62	15.03	18145.05	0.28	0.27	Hexane
Total		2.32	4.04	4.04	0.18	1.65	25.25	30.06	36290.11	0.57	0.54	Hexane

*The RTO emissions represent combustion emissions only.
**While PM2.5 is controlled by a baghouse for LA-52, there is not a federally enforceable limit in the permit for PM2.5. Therefore, this table shows the uncontrolled PTE of PM2.5.

Appendix A: Emissions Calculations
Spent Filter Aid Aspiration System (LA-52)

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Emissions Calculations: Spent Filter Aid Dust Aspiration System (LA-52)

S/V ID	Emission Unit ID	Emission Unit Description	Control Device Type	Control Device ID	Design Flow (acfm) [1]	PM/PM10 Outlet Grain Loading (gr/acf) [1]	PM/PM10 Control Efficiency [1]	PM/PM10 Controlled PTE (lb/hr) [2]	PM/PM10 Controlled PTE (ton/yr) [3]	PM/PM10 Uncontrolled PTE (ton/yr) [4]	PM2.5 : PM10 Ratio [5]	PM2.5 Uncontrolled PTE (ton/yr) [6]	PM2.5 Control Efficiency [7]	PM2.5 Controlled PTE (ton/yr) [8]
52	LA-52	Spent Filter Aid Aspiration System	Baghouse	LAC-52	5,000	0.005	98.0%	0.2	0.94	46.93	0.17059	8.01	95.0%	0.40

Methodology

[1] Design value.
[2] PM/PM10 Controlled PTE (lb/hr) = Flowrate (acfm) x Outlet Grain Loading (gr/acf) x (60 min/hr) x (1 lb/7000 gr)
[3] PM/PM10 Controlled PTE (ton/yr) = PM/PM10 Controlled PTE (lb/hr) x (8760 hr/yr) x (1 ton/2000 lb)
[4] PM/PM10 Uncontrolled PTE (ton/yr) = PM/PM10 Controlled PTE (ton/yr) / (1 - Control Efficiency)
[5] PM2.5 : PM10 ratio is based on PM10 and PM2.5 AP-42 emission factors for Feed and Grain Elevators, Grain Handling (SCC 3-02-005-30), Table 9.9.1-1 (it is assumed that all PM10 and all PM2.5 is filterable for
[6] PM2.5 Uncontrolled PTE (ton/yr) = PM/PM10 Uncontrolled PTE (ton/yr) x PM2.5 : PM10 ratio
[7] PM2.5 Control Efficiency is assumed to be less than for PM and PM10 (AP-42, Appendix B.2, Table B.2-3)
[8] PM2.5 Controlled PTE (ton/yr) = PM2.5 Uncontrolled PTE (ton/yr) x (1 - PM2.5 Control Efficiency)

Appendix A: Emissions Calculations
RTO Combustion Emissions (LAC-600 and LAC-601)

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Emissions Calculations: Natural Gas Combustion for RTO burners (LAC-600 and LAC-601)

			Criteria Pollutants							GHGs				
			PM*	PM10*	PM2.5*	SO2	NOx**	VOC	CO	CO2	N2O***	CH4	GHG Mass-Based	CO2e
Emission Factor in lb/MMCF			1.9	7.6	7.6	0.6	100.0	5.5	84.0	120000	2.2	2.3		
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
RTO No. 1 (LAC-600)	35	300.588	0.286	1.142	1.142	0.090	15.029	0.827	12.625	18035.29	0.33	0.35	18035.97	18145.05
RTO No. 2 (LAC-601)	35	300.588	0.286	1.142	1.142	0.090	15.029	0.827	12.625	18035.29	0.33	0.35	18035.97	18145.05
Total			0.57	2.28	2.28	0.18	30.06	1.65	25.25	36070.59	0.66	0.69	36071.94	36290.11

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2.
*PM emission factor is filterable PM only. PM10 emission factor is filterable PM10 and condensable PM combined. PM2.5 emission factor is filterable PM2.5 and condensable PM combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
***Emission Factors for N2O: Uncontrolled = 2.2, Low NOx Burner = 0.64

			HAPs - Organics					HAPs - Metals					Total HAPs
			Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMCF			2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	1.8880
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)										
RTO No. 1 (LAC-600)	35	300.588	3.2E-04	1.8E-04	1.1E-02	2.7E-01	5.1E-04	7.5E-05	1.7E-04	2.1E-04	5.7E-05	3.2E-04	2.8E-01
RTO No. 2 (LAC-601)	35	300.588	3.2E-04	1.8E-04	1.1E-02	2.7E-01	5.1E-04	7.5E-05	1.7E-04	2.1E-04	5.7E-05	3.2E-04	2.8E-01
Total			6.3E-04	3.6E-04	2.3E-02	5.4E-01	1.0E-03	1.5E-04	3.3E-04	4.2E-04	1.1E-04	6.3E-04	5.7E-01

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.
The five highest organic and metal HAPs emission factors are provided above. The total HAPs is the sum of all HAPs listed in AP-42, Tables 1.4-3 and 1.4-4.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology

Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Gluten Meal Dryer (LA-15) with Control Device Changes - Summary

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Emissions from LA-15 will be routed to scrubber LAC-67 (along with LA-8 and LA-17a) instead of LAC-68. Emissions from LAC-67 will now be routed to one or both RTOs (LAC-600 and LAC-601).

Emissions Calculations Summary: Gluten Meal Dryer (LA-15)

Unit: Emissions	Emissions Type	Potential to Emit (ton/yr)							
		PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
LA-15: Uncontrolled PTE (ton/yr)	Process Emissions	741.17	673.96	422.19	1386.09		81.63	43.80	
	Combustion Emissions					11.16			26850.38
	Total	*741.17*	*673.96*	*422.19*	*1386.09*	*11.16*	*81.63*	*43.80*	*26850.38*
LA-15: Controlled PTE (ton/yr)	Process Emissions	140.82	146.63	102.13	138.61		0.89	4.38	
	Combustion Emissions					11.16			26850.38
	Total	*140.82*	*146.63*	*102.13*	*138.61*	*11.16*	*0.89*	*4.38*	*26850.38*

Shaded cells: The process emissions include the combustion emissions.

Appendix A: Emissions Calculations
Gluten Meal Dryer (LA-15) with Control Device Changes - Process Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Process Emissions: Gluten Meal Dryer (LA-15)

Data Element	Data Designation	Value		Reference/Calculation
Basis Data for LA-15				
Grind Rate during Test				
SO2/PM	[A]	[redacted]	Bu/day	Average grind rate during test (4/15/2008)
VOC	[B]	[redacted]	Bu/day	Average grind rate during test (4/16/2008)
Controlled Emission Rates During Testing				
SO2	[C]	100.0	lb/hr	Average of 3 test runs (4/15/2008 for SO2/PM, 4/16/2008 for VOC) (testing included LA-15 process emissions and LA-45 exhuast gas emissions)
PM	[D]	36.8	lb/hr	
VOC	[E]	15.9	lb/hr	
Scrubber Control Efficiencies (LAC-68)				
SO2	[F]	85%		Engineering assumption based on test data
PM	[G]	81%		Engineering assumption based on test data
VOC	[H]	15.7%		Engineering assumption based on test data
Acetaldehyde		0.0%		No Control
Uncontrolled Emission Rates During Testing				
SO2	[I]	666.7	lb/hr	= [C] x (1 - [F])
PM	[J]	193.7	lb/hr	= [D] x (1 - [G])
VOC	[K]	18.9	lb/hr	= [E] x (1 - [H])
Boiler Exhaust Emissions During Testing				
SO2	[L]	519.83	lb/hr	2.29 lb SO2/MMBtu @ 227 MMBtu/hr
PM	[M]	45.4	lb/hr	0.2 lb PM/MMBtu @ 227 MMBtu/hr
VOC	[N]	1.09	lb/hr	0.1 lb VOC/ton coal @ 10.864 ton coal/hr
% Boiler Gas to Gluten Dryer	[O]	70%		Design Value
Boiler Exhaust Emissions to Gluten Dryer During Testing				
SO2	[P]	363.88	lb/hr	= [L] x [O]
PM	[Q]	31.78	lb/hr	= [M] x [O]
VOC	[R]	0.76	lb/hr	= [N] x [O]
Uncontrolled Process Emissions (LA-15) During Testing				
SO2	[S]	302.79	lb/hr	= [I] - [P]
	[T]	[redacted]	lb/Bu	= [S] x (24 hr/day) / [A]
PM	[U]	161.90	lb/hr	= [J] - [Q]
	[V]	[redacted]	lb/Bu	= [U] x (24 hr/day) / [A]
VOC	[W]	18.10	lb/hr	= [K] - [R]
	[X]	[redacted]	lb/Bu	= [W] x (24 hr/day) / [B]
Uncontrolled Potential to Emit				
Maximum Grind Rate	[Y]	[redacted]	Bu/day	Design Value
SO2	[Z]	1386.09	TPY	= [T] x [Y] x (365 day/yr) x (1 ton / 2000 lb)
PM	[AA]	741.17	TPY	= [Y] x [V] x (365 day/yr) x (1 ton / 2000 lb)
PM10-Filterable	[BB]	585.52	TPY	= [AA] x (0.79 ton PM10-Fil/ ton PM) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM2.5-Filterable	[CC]	333.75	TPY	= [BB] x (0.57 ton PM2.5-Fil/ ton PM10-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM-Condensable	[DD]	88.44	TPY	= [CC] x (0.265 ton PM-Con / ton PM2.5-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM10-Total	[EE]	673.96	TPY	= [BB] + [DD]
PM2.5-Total	[FF]	422.19	TPY	= [CC] + [DD]
VOC	[GG]	81.63	TPY	= [Y] x [X] x (365 day/yr) x (1 ton / 2000 lb)
CO	[HH]	43.80	TPY	Based on testing and material balance
Scrubber (LAC-67) Control Efficiencies				
SO2	[II]	90%		Engineering assumption based on test data
PM/PM10-Filterable	[JJ]	81%		Engineering assumption based on test data
PM2.5-Filterable	[KK]	80%		Engineering Estimate
PM-Condensable	[LL]	60%		Engineering Estimate
VOC	[MM]	45.6%		Based on April 2008 test data
RTO (LAC-600 and LAC-601) Control Efficiencies				
VOC	[NN]	98.0%		Based on BACT
CO	[OO]	90.0%		Based on BACT
Controlled Potential to Emit - After Scrubber and RTO				
SO2	[PP]	138.61	TPY	= [Z] x (1 - [II])
PM	[QQ]	140.82	TPY	= [AA] x (1 - [JJ])
PM10-Total	[RR]	146.63	TPY	= {[BB] x (1 - [JJ])} + {[DD] x (1 - [LL])}
PM2.5-Total	[SS]	102.13	TPY	= {[CC] x (1 - [KK])} + {[DD] x (1 - [LL])}
VOC	[TT]	0.89	TPY	= [GG] x (1 - [MM]) x (1 - [NN])
CO	[UU]	4.38	TPY	= [HH] x (1 - [OO])

Appendix A: Emissions Calculations
Gluten Meal Dryer (LA-15) Combustion Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Combustion Emissions: Gluten Meal Dryer (LA-15) - Natural Gas Combustion

				Criteria Pollutants							GHGs				
				PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
			Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	50.0	5.5	84.0	120000	0.64	2.3		
Emissions	Heat Input Capacity (MMBtu/hr)	Hours/yr	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
Gluten Meal Dryer (LA-15)	52	8760	446.588	0.42	1.70	1.70	0.13	11.16	1.23	18.76	26795.29	0.14	0.51	26795.95	26850.38

NOx emission factor assumes low-NOx burners.
See the methodology for the RTOs (LAC-600 and LAC-601).
Note: Particulate, SO2, VOC, and CO combustion emissions are included in the process emissions since the combustion and process gases are co-mingled.

Appendix A: Emissions Calculations
Fiber Dryer (LA-8) and DSLC Dryer (LA-17A) with Control Device Changes - Summary

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Emissions from LA-8 and LA-17A will continue to be routed to scrubber LAC-67. Emissions from LAC-67 will now be routed to one or both RTOs (LAC-600 and LAC-601).

Emissions Calculations Summary: Fiber Dryer (LA-8) and DSLC Dryer (LA-17A)

Unit: Emissions	Emissions Type	Potential to Emit (ton/yr)							
		PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
LA-8 and LA-17A: Uncontrolled PTE (ton/yr)	Process Emissions	245.76	223.47	139.99	16.89		231.22	1646.88	
	LA-8 Combustion Emissions					36.95			41351.60
	LA-17A Combustion Emissions					28.67			32083.14
	Total	*245.76*	*223.47*	*139.99*	*16.89*	*65.62*	*231.22*	*1646.88*	*73434.74*
LA-8 and LA-17A: Controlled PTE (ton/yr)	Process Emissions	46.69	48.62	33.86	1.69		2.52	164.69	
	LA-8 Combustion Emissions					36.95			41351.60
	LA-17A Combustion Emissions					28.67			32083.14
	Total	*46.69*	*48.62*	*33.86*	*1.69*	*65.62*	*2.52*	*164.69*	*73434.74*

Shaded cells: The process emissions include the combustion emissions.

Appendix A: Emissions Calculations

Fiber Dryer (LA-8) and DSLC Dryer (LA-17A) with Control Device Changes - Process Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Process Emissions: Fiber Dryer (LA-8) and DSLC Dryer (LA-17A)

Data Element	Data Designation	Value		Reference/Calculation
Basis Data for LA-8 and LA-17A				
Grind Rate during Test				
SO2/PM	[A]	[redacted]	Bu/day	Average grind rate during test (4/15/2008)
VOC	[B]	[redacted]	Bu/day	Average grind rate during test (4/17/2008)
CO	[C]	[redacted]	Bu/day	Based on testing and material balance
Controlled Emission Rates During Testing				
SO2	[D]	0.369	lb/hr	Average of 3 test runs (4/15/2008 for SO2/PM, 4/17/2008 for VOC)
PM	[E]	10.2	lb/hr	
VOC	[F]	28	lb/hr	
CO	[G]	376	lb/hr	Based on testing and material balance
Scrubber Control Efficiencies (LAC-67)				
SO2	[H]	90%		Engineering assumption based on test data
PM	[I]	81%		Engineering assumption based on test data
VOC	[J]	45.6%		Based on 4/17/2008 test data
CO	[K]	0.0%		No Control
Uncontrolled Emission Rates During Testing				
SO2	[L]	3.7	lb/hr	= [D] x (1 - [H])
	[M]	[redacted]	lb/bu	= [L] x (24 hr/day) / [A]
PM	[N]	53.7	lb/hr	= [E] x (1 - [I])
	[O]	[redacted]	lb/bu	= [N] x (24 hr/day) / [A]
VOC	[P]	51.5	lb/hr	= [F] x (1 - [J])
	[Q]	[redacted]	lb/bu	= [P] x (24 hr/day) / [B]
CO	[R]	376.0	lb/hr	= [G] x (1 - [K])
	[S]	[redacted]		= [R] x (24 hr/day) / [C]
Uncontrolled Potential to Emit				
Maximum Grind Rate	[T]	[redacted]	Bu/day	Design Value
SO2	[U]	16.89	TPY	= [M] x [T] x (365 day/yr) x (1 ton / 2000 lb)
PM	[V]	245.76	TPY	= [O] x [T] x (365 day/yr) x (1 ton / 2000 lb)
PM10-Filterable	[W]	194.15	TPY	= [V] x (0.79 ton PM10-Fil/ ton PM) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM2.5-Filterable	[X]	110.66	TPY	= [W] x (0.57 ton PM2.5-Fil/ ton PM10-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM-Condensable	[Y]	29.33	TPY	= [X] x (0.265 ton PM-Con / ton PM2.5-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM10-Total	[Z]	223.47	TPY	= [W] + [Y]
PM2.5-Total	[AA]	139.99	TPY	= [X] + [Y]
VOC	[BB]	231.22	TPY	= [Q] x [T] x (365 day/yr) x (1 ton / 2000 lb)
CO	[CC]	1646.88	TPY	= [S] x [T] x (365 day/yr) x (1 ton / 2000 lb)
Scrubber (LAC-67) Control Efficiencies				
SO2	[DD]	90%		Engineering assumption based on test data
PM/PM10-Filterable	[EE]	81%		Engineering assumption based on test data
PM2.5-Filterable	[FF]	80%		Engineering Estimate
PM-Condensable	[GG]	60%		Engineering Estimate
VOC	[HH]	45.6%		Based on April 2008 test data
RTOs (LAC-600 and LAC-601) Control Efficiencies				
VOC	[II]	98.0%		Based on BACT
CO	[JJ]	90.0%		Based on BACT
Controlled Potential to Emit - After Scrubber and RTO				
SO2	[KK]	1.69	TPY	= [U] x (1 - [DD])
PM	[LL]	46.69	TPY	= [V] x (1 - [EE])
PM10-Total	[MM]	48.62	TPY	= {[W] x (1 - [EE])} + {[Y] x (1 - [GG])}
PM2.5-Total	[NN]	33.86	TPY	= {[X] x (1 - [FF])} + {[Y] x (1 - [GG])}
VOC	[OO]	2.52	TPY	= [BB] x (1 - [HH]) x (1 - [II])
CO	[PP]	164.69	TPY	= [CC] x (1 - [JJ])

Appendix A: Emissions Calculations
Fiber Dryer (LA-8) and DSLC Dryer (LA-17A) - Combustion Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Combustion Scenario 1 (Natural Gas Combustion Emissions): Fiber Dryer (LA-8) and DSLC Dryer (LA-17A)

				Criteria Pollutants							GHGs				
				PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
			Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0	5.5	84.0	120000	0.64	2.3		
Emissions	Heat Input Capacity (MMBtu/hr)	Hours/yr	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
Fiber Dryer (LA-8) NG Combustion	58	8760	498.118	0.47	1.89	1.89	0.15	24.91	1.37	20.92	29887.06	0.16	0.57	29887.79	29948.50
DSLC Dryer (LA-17A) NG Combustion	45	8760	386.471	0.37	1.47	1.47	0.12	19.32	1.06	16.23	23188.24	0.12	0.44	23188.80	23235.91

NOx emission factor assumes uncontrolled emissions.
See the methodology for the RTOs (LAC-600 and LAC-601).
Note: Particulate, SO2, VOC, and CO combustion emissions are included in the process emissions since the combustion and process gases are co-mingled.

Combustion Scenario 2 (No. 2 Fuel Oil Combustion Emissions): Fiber Dryer (LA-8) and DSLC Dryer (LA-17A)

				Criteria Pollutants							GHGs				
				PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
			Emission Factor in lb/kgal	2.0	2.3	1.55	71.0	20.0	0.2	5.0	22300	0.26	0.052		
		Heating Value (MMBtu/kgal)	137.5				142S								
Emissions	Heat Input Capacity (MMBtu/hr)	Hours/yr	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)											
Fiber Dryer (LA-8) No. 2 FO Combustion	58	8760	3695.127	3.70	4.25	2.86	131.18	36.95	0.37	9.24	41200.67	0.48	0.10	41201.25	41351.60
DSLC Dryer (LA-17A) No. 2 FO Combustion	45	8760	2866.909	2.87	3.30	2.22	101.78	28.67	0.29	7.17	31966.04	0.37	0.07	31966.48	32083.14

Emission Factors: AP-42, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-8, 1.3-10, 1.3-12, industrial boilers < 100 MMBtu/hr, distillate oil
*PM is filterable PM only. PM10 is filterable PM10 and condensable PM combined. PM2.5 is filterable PM2.5 and condensable PM combined.
Note: Particulate, SO2, VOC, and CO combustion emissions are included in the process emissions since the combustion and process gases are co-mingled.

Methodology
Heating Value of No. 2 Fuel Oil is assumed to be 137.5 MMBtu/kgal
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 kgal/137.5 MMBtu
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
GR Dryer (LA-47) and Germ Pre-Dryer (LA-60) with Control Device Changes - Summary

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Emissions from LA-47 and LA-60 will continue to be routed to scrubber LAC-69. Emissions from LAC-69 will now be routed to one or both RTOs (LAC-600 and LAC-601).

Emissions Calculations Summary: GR Dryer (LA-47) and Germ Pre-Dryer (LA-60)

Unit: Emissions	Emissions Type	Potential to Emit (ton/yr)							
		PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
LA-47 and LA-60: Uncontrolled PTE (ton/yr)	Process Emissions	240.94	219.09	137.24	5.43		474.79	1646.88	
	LA-47 Combustion Emissions					35.04			39212.72
	Total	*240.94*	*219.09*	*137.24*	*5.43*	*35.04*	*474.79*	*1646.88*	*39212.72*
LA-47 and LA-60: Controlled PTE (ton/yr)	Process Emissions	45.78	47.66	33.20	0.81		2.39	164.69	
	LA-47 Combustion Emissions					35.04			39212.72
	Total	*45.78*	*47.66*	*33.20*	*0.81*	*35.04*	*2.39*	*164.69*	*39212.72*

Shaded cells: The process emissions include the combustion emissions.

Appendix A: Emissions Calculations

GR Dryer (LA-47) and Germ Pre-Dryer (LA-60) with Control Device Changes - Process Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Process Emissions: GR Dryer (LA-47) and Germ Pre-Dryer (LA-60)

Data Element	Data Designation	Value		Reference/Calculation
Basis Data for LA-47 and LA-60				
Grind Rate during Test				
SO2/PM	[A]	[redacted]	Bu/day	Average grind rate during test (4/15/2008)
VOC	[B]	[redacted]	Bu/day	Average grind rate during test (4/18/2008)
CO	[C]	[redacted]	Bu/day	Based on test data and material balance
Controlled Emission Rates During Testing				
SO2	[D]	0.178	lb/hr	Average of 3 test runs (4/15/2008 for SO2/PM, 4/18/2008 for VOC)
PM	[E]	10.0	lb/hr	
VOC	[F]	26.8	lb/hr	
CO	[G]	376.0	lb/hr	Test data and material balance
Scrubber Control Efficiencies (LAC-69)				
SO2	[H]	85%		Engineering assumption based on test data
PM	[I]	81%		Engineering assumption based on test data
VOC	[J]	74.8%		Based on 4/18/2008 test data
CO	[K]	0.0%		No Control
Uncontrolled Emission Rates During Testing				
SO2	[L]	1.2	lb/hr	= [D] x (1 - [H])
	[M]	[redacted]	lb/bu	= [L] x (24 hr/day) / [A]
PM	[N]	52.6	lb/hr	= [E] x (1 - [I])
	[O]	[redacted]	lb/bu	= [N] x (24 hr/day) / [A]
VOC	[P]	106.3	lb/hr	= [F] x (1 - [J])
	[Q]	[redacted]	lb/bu	= [P] x (24 hr/day) / [B]
CO	[R]	376.0	lb/hr	= [G] x (1 - [K])
	[S]	[redacted]	lb/bu	= [R] x (24 hr/day) / [C]
Uncontrolled Potential to Emit				
Maximum Grind Rate	[T]	[redacted]	Bu/day	Design Value
SO2	[U]	5.43	TPY	= [M] x [T] x (365 day/yr) x (1 ton / 2000 lb)
PM	[V]	240.94	TPY	= [O] x [T] x (365 day/yr) x (1 ton / 2000 lb)
PM10-Filterable	[W]	190.34	TPY	= [V] x (0.79 ton PM10-Fil/ ton PM) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM2.5-Filterable	[X]	108.49	TPY	= [W] x (0.57 ton PM2.5-Fil/ ton PM10-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM-Condensable	[Y]	28.75	TPY	= [X] x (0.265 ton PM-Con / ton PM2.5-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM10-Total	[Z]	219.09	TPY	= [W] + [Y]
PM2.5-Total	[AA]	137.24	TPY	= [X] + [Y]
VOC	[BB]	474.79	TPY	= [Q] x [T] x (365 day/yr) x (1 ton / 2000 lb)
CO	[CC]	1646.88	TPY	= [S] x [T] x (365 day/yr) x (1 ton / 2000 lb)
Scrubber (LAC-69) Control Efficiencies				
SO2	[DD]	85%		Engineering assumption based on test data
PM/PM10-Filterable	[EE]	81%		Engineering assumption based on test data
PM2.5-Filterable	[FF]	80%		Engineering Estimate
PM-Condensable	[GG]	60%		Engineering Estimate
VOC	[HH]	74.8%		Based on 4/18/2008 test data
RTOs (LAC-600 and LAC-601) Control Efficiencies				
VOC	[II]	98.0%		Based on BACT
CO	[JJ]	90.0%		Based on BACT
Controlled Potential to Emit - After Scrubber and RTO				
SO2	[KK]	0.81	TPY	= [U] x (1 - [DD])
PM	[LL]	45.78	TPY	= [V] x (1 - [EE])
PM10-Total	[MM]	47.66	TPY	= {[W] x (1 - [EE])} + {[Y] x (1 - [GG])}
PM2.5-Total	[NN]	33.20	TPY	= {[X] x (1 - [FF])} + {[Y] x (1 - [GG])}
VOC	[OO]	2.39	TPY	= [BB] x (1 - [HH]) x (1 - [II])
CO	[PP]	164.69	TPY	= [CC] x (1 - [JJ])

Appendix A: Emissions Calculations
GR Dryer (LA-47) - Combustion Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Combustion Scenario 1 (Natural Gas Combustion Emissions): GR Dryer (LA-47)

				Criteria Pollutants							GHGs				
				PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
			Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0	5.5	84.0	120000	0.64	2.3		
Emissions	Heat Input Capacity (MMBtu/hr)	Hours/yr	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
GR Dryer (LA-47) NG Combustion	55	8760	472.353	0.45	1.79	1.79	0.14	23.62	1.30	19.84	28341.18	0.15	0.54	28341.87	28399.44

NOx emission factor assumes uncontrolled
See the methodology for the RTOs (LAC-600 and LAC-601).
Note: Particulate, SO2, VOC, and CO combustion emissions are included in the process emissions since the combustion and process gases are co-mingled.

Combustion Scenario 2 (No. 2 Fuel Oil Combustion Emissions): GR Dryer (LA-47)

				Criteria Pollutants							GHGs				
				PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
			Emission Factor in lb/kgal	2.0	2.3	1.55	71.0	20.0	0.2	5.0	22300	0.26	0.052		
		Heating Value (MMBtu/kgal):	137.5				142S								
Emissions	Heat Input Capacity (MMBtu/hr)	Hours/yr	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)											
LA-47: PAE (based on PTE)	55	8760	3504.000	3.50	4.03	2.72	124.39	35.04	0.35	8.76	39069.60	0.46	0.09	39070.15	39212.72

See the methodology for No. 2 Fuel Oil Combustion for LA-8 and LA-17A
Note: Particulate, SO2, VOC, and CO combustion emissions are included in the process emissions since the combustion and process gases are co-mingled.

Appendix A: Emissions Calculations

Germ Dryer No. 3 (LA-53) with Control Device Changes - Summary and Process Emissions

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Modification: Emissions from LA-53 will now be routed to scrubber LAC-69 (previously no scrubber control) along with LA-47 and LA-60. Emissions from LAC-69 will now be routed to one or both RTOs (LAC-600 and LAC-601).

Emissions Calculations Summary: Germ RST Finish Dryer (LA-53)

Unit: Emissions	Emissions Type	Potential to Emit (ton/yr)							
		PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2e
LA-53: Uncontrolled PTE (ton/yr)	Process Emissions	20.01	18.20	11.40	144.86		28.12		
LA-53: Controlled PTE (ton/yr)	Process Emissions	3.80	3.96	2.76	21.73		0.14		

Process Emissions: Germ RST Dryer (LA-53)

Data Element	Data Designation	Value		Reference/Calculation
Basis Data for LA-53				
Grind Rate during Test				
SO2	[A]	[redacted]	Bu/day	Operating data during Test 2
VOC/PM	[B]	[redacted]	Bu/day	Operating data during Test 3
Uncontrolled Emission Rates During Testing				
SO2	[C]	32.17	lb/hr	Test 2 result (highest value of three tests)
	[D]	[redacted]	lb/bu	= [C] x (24 hr/day) / [A]
PM	[E]	4.07	lb/hr	Test 3 result
	[F]	[redacted]	lb/bu	= [E] x (24 hr/day) / [B]
VOC	[G]	5.72	lb/hr	Test 3 result (highest value of three tests)
	[H]	[redacted]	lb/bu	= [G] x (24 hr/day) / [B]
Uncontrolled Potential to Emit				
Maximum Grind Rate	[I]	[redacted]	Bu/day	Design Value
SO2	[J]	144.86	TPY	= [I] x [D] x (365 day/yr) x (1 ton / 2000 lb)
PM	[K]	20.01	TPY	= [I] x [F] x (365 day/yr) x (1 ton / 2000 lb)
PM10-Filterable	[L]	15.81	TPY	= [K] x (0.79 ton PM10-Fil/ ton PM) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM2.5-Filterable	[M]	9.01	TPY	= [L] x (0.57 ton PM2.5-Fil/ ton PM10-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM-Condensable	[N]	2.39	TPY	= [M] x (0.265 ton PM-Con / ton PM2.5-Fil) - Based on 2005 National Emission Inventory Data for SCCs 3-02-007-66/67/68
PM10-Total	[O]	18.20	TPY	= [L] + [N]
PM2.5-Total	[P]	11.40	TPY	= [M] + [N]
VOC	[Q]	28.12	TPY	= [I] x [H] x (365 day/yr) x (1 ton / 2000 lb)
Scrubber (LAC-69) Control Efficiencies - LA-53 will be routed through LAC-69 (no scrubber currently)				
SO2	[R]	85%		Engineering assumption based on test data
PM/PM10-Filterable	[S]	81%		Engineering assumption based on test data
PM2.5-Filterable	[T]	80%		Engineering Estimate
PM-Condensable	[U]	60%		Engineering Estimate
VOC	[V]	74.8%		Based on April 2008 test data
RTOs (LAC-600 and LAC-601) Control Efficiencies				
VOC	[W]	98.0%		Based on BACT
Controlled Potential to Emit - After Scrubber and RTO				
SO2	[X]	21.73	TPY	= [J] x (1 - [R])
PM	[Y]	3.80	TPY	= [K] x (1 - [S])
PM10-Total	[Z]	3.96	TPY	= {[L] x (1 - [S])} + {[N] x (1 - [U])}
PM2.5-Total	[AA]	2.76	TPY	= {[M] x (1 - [T])} + {[N] x (1 - [U])}
VOC	[BB]	0.14	TPY	= [Q] x (1 - [V]) x (1 - [W])

Appendix A: Emissions Calculations
Riley Stoker Boiler (LA-45) with Control Device Changes

Source: Tate & Lyle Ingredients Americas, LLC
Location: 3300 US 52 S, Lafayette, IN 47905-7977
SSM No.: 157-30513-00033
SPM No.: 157-33432-00033
Permit Reviewer: Laura Spriggs

Emissions will be routed through a scrubber after the ESP.

Emissions Calculations: Riley Stoker Boiler (LA-45)

					Criteria Pollutants										GHGs				
					PM*	PM10 filterable	PM2.5 filterable	PM Condensable	Total PM10*	Total PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
Emission Factor in lb/ton					66.0	13.2	4.6				147.1	11.0	0.05	5.0	6250	0.04	0.06		
Emission Factor in lb/MMBtu								0.04											
ESP Control Efficiency					98%	98%	95%	30%											
Scrubber Control Efficiency					50%	50%	40%	40%			90%								
Emissions		Heat Input (MMBtu/hr)	Coal Heating Value (Btu/lb)	Coal Usage (ton/yr)	Potential Emissions (tons/yr)														
LA-45	Uncontrolled	239.00	11,000.00	95,165.45	3,140.46	628.09	218.88	41.87	669.96	260.75	6,997.52	523.41	2.38	237.91	297,392.05	1.90	2.85	297,396.80	298,042.03
	Controlled				31.40	6.28	6.57	17.59	23.87	24.15	699.75	523.41	2.38	237.91	297,392.05	1.90	2.85	297,396.80	298,042.03

Emission Factors: AP-42, Tables 1.1-3, 1.1-4, 1.1-5, 1.1-9, 1.1-18, 1.1-19, 1.1-20
*PM is filterable PM only. PM10 is filterable PM10 and condensable PM combined. PM2.5 is filterable PM2.5 and condensable PM combined.

Methodology
Coal Usage (ton/yr) = Heat Input (MMBtu/hr) x (8760 hr/yr) x (1 ton/2000 lb) x (1,000,000 Btu/MMBtu) / Coal Heating Value (Btu/lb)
Emissions (ton/yr) = Coal Usage (ton/yr) x Emission Factor (lb/ton) x (1 ton/2000 lb)
OR Emissions (ton/yr) = Heat Input (MMBtu/hr) x Emission Factor (lb/MMBtu) x (1 ton/2000 lb) x (8760 hr/yr)
GHGs:
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: February 19, 2014

RE: Tate & Lyle Ingredients Americas, LLC / 157-33432-00033

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
http://www.in.gov/ai/appfiles/idem-caats/

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 6/13/2013

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Susan Hayenga
Significant Permit Modification
3300 US 52 South
Lafayette, IN 47905

DATE: February 19, 2014

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Significant Permit Modification
157-33432-00033

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Keith Oliger – Plant Manager
John Dent – Tate & Lyle
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

February 19, 2014

TO: Tippecanoe County Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Tate & Lyle Ingredients Americas, LLC
Permit Number: 157-33432-00033

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 2/19/2014 Tate & Lyle Ingredients Americas LLC South Plant 157-33432-00033 Final			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Susan Hayenga Tate & Lyle Ingredients Americas LLC South Plant 3300 US 52 S Lafayette IN 47905-7977 (Source CAATS) via confirmed delivery									
2		Keith Oliger Plant Mgr Tate & Lyle Ingredients Americas LLC South Plant 3300 US 52 S Lafayette IN 47905-7977 *(RO CAATS)*									
3		Mr. Elliott McKinnis 2605 Yeager Road W. Lafayette IN 47906 *(Affected Party)*									
4		Mr. Jim Purdue 6117 Flintlock Drive West Lafayette IN *(Affected Party)*								e	
5		Mr. Dan Altepeter 1161 E 430 S Lafayette IN 47909 *(Affected Party)*									
6		Ms. Peggy Schlorch 1800 Starks Circle Lafayette IN 47909-7377 *(Affected Party)*									
7		Ms. Jennifer Wayt-Dunten 7758 N SR 29 Frankfort IN 46041 *(Affected Party)*									
8		Ms. Danelle Miller Marks Baker & Daniels 300 North Meridian Street, Suite 2700 Indianapolis IN 46204-1782 *(Attorney)*									
9		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 *(Local Official)*									
10		Lafayette Fire Department 443 North 4th Street Lafayette IN 47901 *(Affected Party)*									
11		Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 *(Health Department)*									
12		Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 *(Local Official)*									
13		Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 (Library)									
14		Ms. Joyce Good 1021 Berkley Rd. Lafayette IN 47904 *(Affected Party)*									
15		Mr. Robert Dexter 2158 Ulen Ln Lafayette IN 47904-1623 *(Affected Party)*									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
14			

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1		Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 (Affected Party)									
2		Ms. Denice Loveless 1319 North 15th Street Lafayette IN 47904-2115 *(Affected Party)*									
3		Mr. Charles Neill 700 N. 28th St. Lafayette IN 47904-2705 *(Affected Party)*									
4		Mr. James Burkett 1115 E Evans St Springfield MO 65810-2926 *(Affected Party)*									
5		Mr. Robert Laird 2005 Platte Dr. Lafayette IN 47905 *(Affected Party)*									
6		Mr. Michael Simpson River Oaks Homeowner Association 2401 River Oaks Lafayette IN 47905 *(Affected Party)*									
7		Mr. Wendell Wiley 112 Peppertree Ct. Lafayette IN 47905 *(Affected Party)*									
8		Ms. Sarah Templin Vinton Woods Club 3516 Mulberry Dr. Lafayette IN 47905 *(Affected Party)*									
9		Mr. Charles Craw 3624 Cypress Lane Lafayette IN 47905 *(Affected Party)*									
10		City Council Representative, District 4 1227 Catula Ave. Lafayette IN 47905 *(Affected Party)*									
11		Mr. John Gladden 2413 Natalie Lane Lafayette IN 47905 *(Affected Party)*									
12		Mr. Jake Blair 3481 US 52 S Lafayette IN 47905 *(Affected Party)*									
13		Mr. Roy Borden 146 Bordequx Boulevard Lafayette IN 47905 (Affected Party)									
14		Ms. Evelyn Briggs 213 Fairington Ct, Apt 19 Lafayette IN 47905-4821 *(Affected Party)*									
15		Ms. Deborah Deel 112 Bordeaux Boulevard Lafayette IN 47905 *(Affected Party)*									

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1		Kathleen Dirosaria 1502 Virginia Street Lafayette IN 47905 (Affected Party)									
2		Ms. Cheryl Hartman 148 Bordeaux Boulevard Lafayette IN 47905 *(Affected Party)*									
3		Mr. Weldon Kell 1010 Cumberland Ave #217 West Lafayette IN 47905 *(Affected Party)*									
4		Ms. Norma Kessen 2513 Shasta Dr Lafayette IN 47909 *(Affected Party)*									
5		Richard Land 109 Bordeaux Boulevard Lafayette IN 47905 *(Affected Party)*									
6		Ms. Scarlett Manion P.O. Box 6592 Lafayette IN 47903 *(Affected Party)*									
7		Ms. Donna Patton 13 Rene Blvd Lafayette IN 47905 *(Affected Party)*									
8		A. G. Vangordon 158 Bordeaux Lafayette IN 47905 *(Affected Party)*									
9		Ms. Dianna Velter 88 Deveraux Circle Lafayette IN 47905 *(Affected Party)*									
10		Sanctuary Homeowners 3511 Pintail Drive Lafayette IN 47905 *(Affected Party)*									
11		Mary Ann and Bruce Junius 1625 Cottonwood Cr. Lafayette IN 47905 *(Affected Party)*									
12		Ms. Vickie Richardson 2726 Vinton St. Lafayette IN 47904-1761 *(Affected Party)*									
13		Mr. Michael Smith 1824 Arcadia Drive Lafayette IN 47905 (Affected Party)									
14		Mr. Howard Helfrich 1517 W Hawkes St, Unit 1 Arlington Heights IL 60004-7478 *(Affected Party)*									
15		Mr. Ronald McDaniel 2805 N. 400 W. Lafayette IN 47906-5228 *(Affected Party)*									

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1		Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 (Affected Party)									
2		Mr. Elmer Beringer 22348 N 400 W W Lafayette IN 47905 *(Affected Party)*									
3		Ms. Connie Wagner 803 Greenwich Road Lafayette IN 47905-4324 *(Affected Party)*									
4		Ms. Jennifer Schramm 3614 E. County Road 200 N. Lafayette IN 47905-7852 *(Affected Party)*									
5		Mr. Kevin Lynch 3614 E. County Road 200 N. Lafayette IN 47905-7852 *(Affected Party)*									
6		Mrs. Robin Mills Ridgeway 3614 East County Road 200 North Lafayette IN 47905-7852 *(Affected Party)*									
7		Ms. Wendy Liphard 6830 S. 775 E. Lafayette IN 47905-9331 *(Affected Party)*									
8		Mr. Chad Giroux 3550 Gamble Ln Lafayette IN 47909 *(Affected Party)*									
9		Mr. Jim Holt 3408 Ingram Court Lafayette IN 47909-6380 *(Affected Party)*									
10		Ms. Karen Ward 322 N. Illinois St Monticello IN 47960 *(Affected Party)*									
11		Mr. Stanley Routman 1145 Holly Ln Munster IN 46321-3012 *(Affected Party)*									
12		Mr. Ike Tarvin 2121 Lindberg West Lafayette IN 47905 *(Affected Party)*									
13		Mr. Dor Ben-Amotz 3275 W450 North West Lafayette IN 47906 (Affected Party)									
14		Mr. John Percifield 400 Overlook Dr. West Lafayette IN 47906 *(Affected Party)*									
15		Ms. Mary Blignant 5421 Hillside Lane West Lafayette IN 47906 *(Affected Party)*									

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1		Jerry White 4317 Amesbury Drive West Lafayette IN 47906 (Affected Party)									
2		Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 *(Affected Party)*									
3		Ms. Sue Uhlig 5021 Heritage Drive Lafayette IN 47905 *(Affected Party)*									
4		Ms. Sue Scott 2605 Yeager Rd West Lafayette IN 47906 *(Affected Party)*									
5		Mr. William Cramer 128 Seminole Drive West Lafayette IN 47906 *(Affected Party)*									
6		Emil Berndt 30 Merlin Ct Lafayette IN 47905-9689 *(Affected Party)*									
7		Mrs. Rae Schnapp 315 1/2 W Oak St W. Lafayette IN 47906 *(Affected Party)*									
8		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 *(Affected Party)*									
9		Ms. Mia Lewis 935 N Chauncey Ave West Lafayette IN 47906 *(Affected Party)*									
10		Lon & Lauretta Heide 40 Gregory Court Lafayette IN *(Affected Party)*									
11		Mr. Brandt Hershman PO Box 177 Buck Creek IN 47924 *(Affected Party)*									
12		Mr. Patrick Grimes 443 N 4th Street Lafayette IN *(Affected Party)*									
13		R.J. Beck 20 N. 3rd Street Lafayette IN (Affected Party)									
14		Mr. Marvin Wiederhold 2809 N. 400 West West Lafayette IN *(Affected Party)*									
15		Ms. Melissa Weast Williamson 2905 Beverly Lane Lafayette IN *(Affected Party)*									

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1		Ed Chosnek 316 Ferry Street Lafayette IN 47904 (Affected Party)									
2		Vicki Sines 8625 E. 375 S. Lafayette IN 47905 *(Affected Party)*									
3		West Lafayette City Council and Mayors Office 609 W. Navajo West Lafayette IN 47906 *(Local Official)*									
4		John Dent Tate & Lyle 2200 East Eldorado Street Decatur IL 62521 *(Source – addl contact)*									
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Total number of pieces Listed by Sender 4	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

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