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: December 10, 2013

RE: Criterion Catalysts and Technologies, L.P / 091 - 33571 - 00053

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.

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Jesse Trent
Criterion Catalysts
1800 East US 12
Michigan City, IN 46360

December 10, 2013

Re: 091-33571-00053
Significant Permit Modification to
Part 70 Renewal No.: T091-31600-00053

Dear Jesse Trent:

Criterion Catalysts was issued a Part 70 Operating Permit Renewal No. 091-31600-00053 on November 13, 2012 for a stationary alumina powder and specialty chemical production located at 1800 East US 12, Michigan City, IN 46360. An application requesting changes to this permit was received on August 26, 2013. Pursuant to the provisions of 326 IAC 2-7-12, 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 Renewal 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 Deena Patton, of my staff, at 317-234-5400 or 1-800-451-6027, and ask for extension 4-5400.

Sincerely,

Tripurari Sinha

Tripurari P. Sinha, Ph. D.,
Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit, Technical Support Document and Appendix A

TS/dp

cc: File - LaPorte County
LaPorte County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section
IDEM Northwest Regional Office

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Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

Criterion Catalysts and Technologies, L.P
1800 East U.S. 12
Michigan City, Indiana 46360

(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.: T091-31600-00053	
Issued by: Original Signed Tripurari P. Sinha, Ph.D., Section Chief Permits Branch, Office of Air Quality	Issuance Date: November 13, 2012 Expiration Date: November 13, 2017

First Significant Permit Modification No.: 091-33571-00053	
Issued by: Tripurari Sinha Tripurari Sinha, Ph. D., Section Chief, Permits Branch Office of Air Quality	Issuance Date: December 10, 2013 Expiration Date: November 13, 2017

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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(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary alumina powder and specialty chemical production.

Source Address:	1800 East U.S. 12, Michigan City, Indiana 46360
General Source Phone Number:	219-874-2611
SIC Code:	2819
County Location:	LaPorte
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 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:

(a) Ten (10) storage bins, collectively identified as P-BINS, with each segment equipped with a fabric filter for a total of 17 fabric filters, individually identified as:

(1) Bin T-47 ("TEENS", divided into 4 segments, with four (4) baghouses E-195, E-196, E-197, and E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;

(2) Bin T-49 ("TWENTIES", divided into 2 segments, with two (2) baghouses E-216 and E-217), constructed in 1987, exhausting to stacks AA7 and AA8, respectively;

(3) Bin T-48 ("THIRTIES" with one (1) baghouse E-199), constructed in 1987, exhausting to stack AA5;

(4) Bin T-50 ("FORTIES" with one (1) baghouse E-200), constructed in 1987, exhausting to stack AA6;

(5) Bin T-51 ("FIFTIES", divided into 2 segments with two (2) baghouses E-204 and EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;

(6) Bin T-53 ("SIXTIES", with one (1) baghouse E-201), constructed in 1987, exhausting to stack AA10;

(7) Bin T-52 ("SEVENTIES", with one (1) baghouse EA-130-009), constructed in 1978, exhausting to stack FF;

(8) Bin T-54 ("EIGHTIES", with one (1) baghouse E-202), constructed in 1987, exhausting to stack AA11;

(9) Bin T-94 ("NINETIES", divided into 2 segments with two (2) baghouses E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and

(10) Bin T-95 ("HUNDREDS", divided into 2 segments with two (2) baghouses E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.

(b) One (1) bulk bag loading process, constructed in 1983, identified as T-159, with two (2) baghouses, E-176, for particulate control and E-160 for venting, and exhausting to stacks BB and BA, respectively.

(c) One (1) bulk loading process, identified as E-239, consisting of one (1) sea container loading system, constructed in 1992, equipped with one (1) baghouse (E-190)for particulate control, and exhausting to stack CC.

(d) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as E-110, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B. This is an affected unit under 40 CFR 60, Subpart UUU.

(e) One (1) bulk loading process containing one (1) rail car loading system, constructed in 2006, identified as E-602, equipped with two (2) baghouses, E-190 for particulate control and E-612 for venting, and exhausting to stacks CC and GG, respectively.

(f) One (1) storage bin, constructed in 1951, identified as E-26, with one (1) baghouse for particulate control, and exhausting to stack V.

(g) One (1) storage bin, constructed in 1951, identified as E-52, with one (1) baghouse for particulate control, and exhausting to stack K.

(h) Two (2) day bins, both constructed in 1975, identified as EX-422 and EX-423, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.

(i) Two (2) sodium aluminate reactors, identified as F-31, constructed in 1968, and F-32, constructed in 1972, and exhausting to stacks R and S, respectively.

(j) Two (2) aluminum sulfate reactors, identified as F-34, constructed in 1968, and F-37, constructed in 1972, and exhausting to stacks T and U, respectively.

(k) Two (2) mixers, both constructed in 1975, identified as EX-421, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.

(l) Two (2) calciners, identified as EX-300-25, constructed in 1965, exhausting to stacks P4, H1 and H2, and EX-130-005, constructed in 1975, exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. NO_2 emissions from EX-300-25 and EX-130-005 are controlled voluntarily by a natural

gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

(m) One (1) pneumatic transfer process from the fines grinder system, constructed in 1975, identified as EX-104, equipped with one (1) baghouse for particulate control, and exhausting to stack J.

(n) Bag loadout and other particulate matter processes, constructed in 1975, and a screener and fines grinder feed system, constructed in 2005, collectively identified as EX-631-023, equipped with one (1) baghouse for particulate control, and exhausting to stack F.

(o) One (1) natural gas-fired dryer, constructed in 1965, identified as EX-300-23, rated at 13.8 MMBtu/hr, and exhausting to stack P1.

(p) One (1) natural gas-fired low temperature dryer, constructed in 1965 and modified in 2000, identified as FX-300-35K, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.

Maximum capacities and throughputs not listed in the descriptions above have been included in an IDEM, OAQ confidential file.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(14)]

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

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) One (1) natural gas fired boiler, approved in 2013 for construction, identified as E-7, rated at 150 HP, and exhausting to Stack M.

(b) Degreasing not exceeding 145 gallons per 12 months and not subject to a NESHAP. [326 IAC 8-3-2, 326 IAC 8-3-5].

(c) One (1) Area Dust Collector, identified as ADC #2. This area dust collector controls all emissions from insignificant activities that exhaust inside the building. [326 IAC 6-3-2]

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, approved in 2013 for construction, identified as E-68, rated at 250 HP, and exhausting to Stack N.

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, T091-31600-00053, 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 or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

(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] [IC 13-17-12]

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.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. 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) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "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. All 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(c) 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. The PMPs and their submittal do not require a certification that meets the requirements of

326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) 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, or Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267**.**

(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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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)(8) 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.

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 T091-31600-00053 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 permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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(a), 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.16 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, 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, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

(a) Permit amendments and modifications 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) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) 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.18 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 or notice 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.19 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) or (c) 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;

(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
Permit Administration and Support Section, 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, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). 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) and (c)(1).

(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 [326 IAC 2-7-20(d)]
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.

(f) This condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 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.22 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003

Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.23 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.24 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 5-1-1 (Applicability) and 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.

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 that meets the requirements of 326 IAC 2-7-6(1) by a "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 14-10-1, 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 Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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)][40 CFR 64][326 IAC 3-8]

(a) Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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.

(b) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.11 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 be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that 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.12 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 shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(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.13 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.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:

(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning 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 normal or usual manner of operation.

(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 record the reasonable response steps taken.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the 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. 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). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or 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.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the

necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
(1) Failed to address the cause of the control device performance problems; or
(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*
(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.15 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty

(180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.16 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]

Pursuant to 326 IAC 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) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 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 all 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. Support information includes the following:
  (AA) All calibration and maintenance records.
  (BB) All original strip chart recordings for continuous monitoring instrumentation.
  (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following:
  (AA) The date, place, as defined in this permit, and time of sampling or measurements.
  (BB) The dates analyses were performed.
  (CC) The company or entity that performed the analyses.
  (DD) The analytical techniques or methods used.
  (EE) The results of such analyses.
  (FF) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

(c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and

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

(d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) 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

(2) 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.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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) 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.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) 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 (ww) and/or 326 IAC 2-3-1 (pp), 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).

(f) The report for project at an existing emissions unit shall be submitted no later than 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 (d)(1) and (2) 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 wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

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

(g) 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.19 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 applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Ten (10) storage bins, collectively identified as P-BINS, with each segment equipped with a fabric filter for a total of 17 fabric filters, individually identified as:
- (1) Bin T-47 ("TEENS", divided into 4 segments, with four (4) baghouses E-195, E-196, E-197, and E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;
- (2) Bin T-49 ("TWENTIES", divided into 2 segments, with two (2) baghouses E-216 and E-217), constructed in 1987, exhausting to stacks AA7 and AA8, respectively;
- (3) Bin T-48 ("THIRTIES" with one (1) baghouse E-199), constructed in 1987, exhausting to stack AA5;
- (4) Bin T-50 ("FORTIES" with one (1) baghouse E-200), constructed in 1987, exhausting to stack AA6;
- (5) Bin T-51 ("FIFTIES", divided into 2 segments with two (2) baghouses E-204 and EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;
- (6) Bin T-53 ("SIXTIES", with one (1) baghouse E-201), constructed in 1987, exhausting to stack AA10;
- (7) Bin T-52 ("SEVENTIES", with one (1) baghouse EA-130-009), constructed in 1978, exhausting to stack FF;
- (8) Bin T-54 ("EIGHTIES", with one (1) baghouse E-202), constructed in 1987, exhausting to stack AA11;
- (9) Bin T-94 ("NINETIES", divided into 2 segments with two (2) baghouses E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and
- (10) Bin T-95 ("HUNDREDS", divided into 2 segments with two (2) baghouses E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.

(b) One (1) bulk bag loading process, constructed in 1983, identified as T-159, with two (2) baghouses, E-176 for particulate control and E-160 for venting, and exhausting to stacks BB and BA, respectively.

(c) One (1) bulk loading process, identified as E-239, consisting of one (1) sea container loading system, constructed in 1992, equipped with one (1) baghouse (E-190) for particulate control, and exhausting to stack CC.

(e) One (1) bulk loading process containing one (1) rail car loading system, constructed in 2006, identified as E-602, equipped with two (2) baghouses E-190, for particulate control and E-612, for venting, and exhausting to stacks CC and GG repsectively .

(f) One (1) storage bin, constructed in 1951, identified as E-26, with one (1) baghouse for particulate control, and exhausting to stack V.

(g) One (1) storage bin, constructed in 1951, identified as E-52, with one (1) baghouse for particulate control, and exhausting to stack K.

(h) Two (2) day bins, both constructed in 1975, identified as EX-422 and EX-423, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.

(i) Two (2) sodium aluminate reactors, identified as F-31, constructed in 1968, and F-32,

constructed in 1972, and exhausting to stacks R and S, respectively.

(j) Two (2) aluminum sulfate reactors, identified as F-34, constructed in 1968, and F-37, constructed in 1972, and exhausting to stacks T and U, respectively.

(k) Two (2) mixers, both constructed in 1975, identified as EX-421, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.

(l) Two (2) calciners, identified as EX-300-25, constructed in 1965, exhausting to stacks P4, H1 and H2, and EX-130-005, constructed in 1975, exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. NO_2 emissions from EX-300-25 and EX-130-005 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

(m) One (1) pneumatic transfer process from the fines grinder system, constructed in 1975, identified as EX-104, equipped with one (1) baghouse for particulate control, and exhausting to stack J.

(n) Bag loadout and other particulate matter processes, constructed in 1975, and a screener and fines grinder feed system, constructed in 2005, collectively identified as EX-631-023, equipped with one (1) baghouse for particulate control, and exhausting to stack F.

(o) One (1) natural gas-fired dryer, constructed in 1965, identified as EX-300-23, rated at 13.8 MMBtu/hr, and exhausting to stack P1.

(p) One (1) natural gas-fired low temperature dryer, constructed in 1965 and modified in 2000, identified as FX-300-35K, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.

Maximum capacities and throughputs not listed in the descriptions above have been included in an IDEM, OAQ confidential file.

(The information describing the process contained in this emissions unit 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) Minor Limits [326 IAC 2-2]

(a) The emissions of PM from the bulk bag loading process (T-159) and the bulk loading process (E-239) shall each be limited to less than 5.69 pounds per hour. Compliance with the above limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 1983 modification.

(b) The seventeen (17) storage bin segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, EA-130-012, E-201, EA-130-009, E-202, E-130, E-193, E203, and E-194) shall be subject to the following:

(1) The PM emissions from each of the seventeen (17) storage bin segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, EA-130-012, E-201, EA-130-009, E-202, E-130, E-193, E203, and E-194) shall be limited to less than 0.407 pounds per hour.

(2) The PM_{10} emissions from each of the seventeen (17) storage bin segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, EA-130-012, E-

201, EA-130-009, E-202, E-130, E-193, E203, and E-194) shall be limited to less than 0.24 pounds per hour.

Compliance with the above limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 1987 modification.

(c) The PM and PM10 emissions from the bulk loading process identified as E-602 shall be limited to 0.12 pounds per hour. Compliance with the above limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 2006 modification.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Process), the allowable particulate emission rate from each of the facilities listed below shall be limited as shown in the following table:

Unit ID	Allowable Emission Rate (lb/ton throughput)
E-26	1.78
E-52	1.78
P-BINS	1.97
EX-422	3.03
EX-423	3.03
F-31	1.89
F-32	1.89
F-34	1.87
F-37	1.87
T-159	5.30
E-239	1.90
EX-421	3.34
EX-300-25	3.63
EX-130-005	3.63
EX-104	6.48
EX-631-023	6.95
EX-300-23	2.73
E-602	1.78

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

A Preventive Maintenance Plan (PMP) is required for EX-300-25, EX-130-005, E-26, E-52, T-159, E-239, and E-602 and the respective control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.4 Particulate Controls

(a) In order to comply with Conditions D.1.1 and D.1.2, each baghouse associated with the following processes shall be in operation and control emissions at all times that the process is in operation:

(1) One (1) storage bin identified as E-26;

(2) One (1) storage bin identified as E-52;

(3) One (1) day bin identified as EX-422;

(4) One (1) day bin identified as EX-423;

(5) One (1) bulk bag loading process identified as T-159;

(6) One (1) bulk loading process containing one rail car loading system, identified as E-239, consisting of one (1) sea container loading system;

(7) Two (2) mixers identified as EX-421;

(8) Two (2) calciners identified as EX-300-25 and EX-130-005;

(9) One (1) pneumatic transfer process for the fines grinder system identified as EX-104;

(10) Bag loadout, screener, fines grinder system and other particulate matter processes identified as EX-631-023; and

(11) One (1) bulk loading process containing one rail car loading system, identified as E-602.

(b) In order to comply with Condition D.1.2, the fabric filters for particulate control shall be in operation and control the emissions from P-BINS at all times that the bins are in operation.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.5 Broken or Failed Bag Detection [40 CFR 64]

(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 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.

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

D.1.6 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the exhaust from the stacks for EX-300-25 and EX-130-005 (DCC baghouse), E-26 (stack V), E-52 (stack K), T-159 (stack BB), E-239 (stack CC) and E-602 (stack CC) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

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

D.1.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.6, the Permittee shall maintain a daily record of visible emission notations of the process/control device stack exhausts. 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, (i.e. the process did not operate that day).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) One (1) natural gas fired boiler, approved in 2013 for construction, identified as E-7, rated at 150 HP, and exhausting to Stack M

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, approved in 2013 for construction, identified as E-68, rated at 250 HP, and exhausting to Stack N.
This is an affected unit under 40 CFR 60, Subpart Dc.

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

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

D.2.1 Particulate Matter Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2, the particulate matter (PM) from the two (2) natural gas fired boilers, identified as E-7 and E-68, shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

Where: Pt = Pounds of particulate matter emitted per million (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Unit	Construction Date	Q	Pt
E-7 and E-68	2013	6.28 + 10.21 = 16.50	0.53

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as E-110, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B.
This is an affected unit under 40 CFR 60, Subpart UUU.

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

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

D.3.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

The PM, PM10 and PM2.5 emissions from the natural gas-fired spray dryer, identified as E-110, shall be limited to 6.62 pounds per hour, each. Compliance with the above limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 2006 modification.

Compliance Determination Requirements

D.3.2 Particulate Controls

In order to comply with Condition D.3.1, the Permittee shall control particulate emissions from the natural gas-fired spray dryer, identified as E-110, according to one of the following Operating Scenarios:

(a) Alternative Operating Scenario 1:

(1) The baghouses shall be in operation and control emissions at all times that the E-110 dryer is in operation.

(2) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(b) Alternative Operating Scenario 2:

(1) The baghouses shall be in operation and control emissions at all times that the E-110 dryer is in operation.

(2) The wet scrubber shall be in operation and control emissions at all times that the E-110 dryer is in operation.

(3) In the event that bag failure is observed in a multi-compartment baghouse, if

operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.3 Testing Requirements [326 IAC 2-7-6(1)-(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM, PM_{10} and $PM_{2.5}$ testing for the spray dryer identified as E-110, utilizing methods as approved by the Commissioner. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C- Performance Testing.

The Permittee is required to conduct testing under both Alternative Operating Scenario 1 and Alternative Operating Scenario 2. The PM, PM_{10} and $PM_{2.5}$ testing for each alternative operating scenario shall be conducted as follows:

(a) Alternative Operating Scenario 1 (using the three (3) baghouses to control particulate emissions):

The Permittee shall conduct testing within 180 days of the date of this permit. In the event that Criterion is operating under Alternate Operating Scenario 2 on the date this permit is issued, such testing shall be performed within 180 days of commencing operation under Alternate Operating Scenario 1 after this date. This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration.

(b) Alternative Operating Scenario 2 (also using the wet scrubber to control particulate emissions):

Within five (5) years from the date of the most recent compliance demonstration, the Permittee shall conduct a performance test for particulate matter at the spray dryer in accordance with 40 CFR 60.8. The performance test shall consist of at least three (3) test runs and the sampling time of each test run must be at least two hours. The Permittee shall notify U.S. EPA at least 30 days prior to conducting the performance test to allow U.S. EPA to review the protocol and to have an observer present during the test.

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

D.3.4 Record Keeping Requirements

(a) In order to demonstrate compliance with Condition D.3.2, the Permittee shall keep a daily record of the operating scenario used to control particulate emissions from the dryer.

(b) Pursuant to 326 IAC 2-7-5(3) (B) (ii), The Permittee shall maintain the records of the ratio of scrubbing liquid to flue gas treated at the facility for at least five (5) years.

(c) The Permittee shall maintain records of the opacity measured by the COMS for at least two years.

(d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(b) Degreasing not exceeding 145 gallons per 12 months. [326 IAC 8-3-2][326 IAC 8-3-5]

(c) Emissions from insignificant activities that exhaust inside the building, controlled by one (1) Area Dust Collector, identified as ADC #2. [326 IAC 6-3-2]

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

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

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) The owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover;

(2) Equip the degreaser with a device for draining cleaned parts;

(3) Close the degreaser cover whenever parts are not being handled in the cleaner;

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7);

(6) Store waste solvent only in closed containers;

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those

outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaning Degreasers) users, providers, and manufacturers of solvents for use in cold cleaning degreasers on or after January 1, 2015, except for solvents intended to be used to clean electronic components, shall ensure that the following requirements are met:

(a) No person shall cause or allow the sale of solvents for use in cold cleaner degreasing operations with a VOC composite partial vapor pressure, when diluted at the manufacturer's recommended blend and dilution, that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(b) The Permittee shall maintain all of the following records for each cold cleaning degreaser solvent purchase:

(1) The name and address of the solvent supplier.

(2) The date of purchase.

(3) The type of solvent.

(4) The volume of each unit of solvent.

(5) The total volume of the solvent.

(6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(c) All records required by Condition D.4.2(b) shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

D.4.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the insignificant activities that exhaust inside the building, controlled by one (1) Area Dust Collector, identified as ADC #2 shall not exceed 4.1 pounds per hour based on a process weight rate of 2,000 pounds per hour. The particulate emission limitation was calculated using the following 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as E-110, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B.

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

New Source Performance Standard (NSPS) [40 CFR 60]

E.1.1 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the natural gas-fired spray dryer, identified as E-110, except when otherwise specified in 40 CFR Part 60, Subpart UUU.

E.1.2 New Source Performance Standards for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart UUU, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart UUU (included as Attachment A), which are incorporated by reference as 326 IAC 12, for the natural gas-fired spray dryer, identified as E-110 except as provided in Condition E.1.3:

(1) 40 CFR 60.730(a) and (c);
(2) 40 CFR 60.731;
(3) 40 CFR 60.732;
(4) 40 CFR 60.733;
(5) 40 CFR 60.734(a) and (d);
(6) 40 CFR 60.735;
(7) 40 CFR 60.736; and
(8) 40 CFR 60.737.

E.1.3 New Source Performance Standards for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart A, USEPA has approved an alternative monitoring plan for the wet scrubber utilized in Operating Scenario 2 in a letter dated September 6, 2007. In subsequent letters dated September 6, 2007, November 5, 2008 and December 18, 2009, USEPA clarified the manner in which baghouse opacity readings are to be evaluated while operating under Operating Scenario 2. These letters are included in Attachment B of this permit.

E.1.4 Reporting Requirements as per the AMP approved by United States Environmental Protection Agency (USEPA) in a letter dated December 18, 2009

Any failures to initiate baghouse filter corrective actions procedures shall be reported along with any scrubber operating parameter exceedances as part of the NSPS semi-annual report.

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, approved in 2013 for construction, identified as E-68, rated at 250 HP, and exhausting to Stack N.

This is an affected unit under 40 CFR 60, Subpart Dc.

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

New Source Performance Standard (NSPS) [40 CFR 60]

E.2.1 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the natural gas-fired boiler, identified as E-68, except when otherwise specified in 40 CFR Part 60, Subpart Dc.

E.2.2 New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment C), which are incorporated by reference as 326 IAC 12, for the natural gas-fired fired boiler, identified as E-68

(1) 40 CFR 60.40c(a) and (b)
(2) 40 CFR 60.41c
(3) 40 CFR 60.68(a)(1), (g), (i), and (j)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Criterion Catalysts and Technologies, L.P
Source Address: 1800 East U.S. 12, Michigan City, Indiana 46360
Part 70 Permit No.: T091-31600-00053

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 AND ENFORCEMENT 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: Criterion Catalysts and Technologies, L.P
Source Address: 1800 East U.S. 12, Michigan City, Indiana 46360
Part 70 Permit No.: T091-31600-00053

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 **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Semi-Annual Report
40 CFR Part 60, Subpart UUU Semi-Annual Report

Source Name: Criterion Catalysts and Technologies, L.P.
Source Address: 1800 East U.S. 12, Michigan City, Indiana 46360
Permit Renewal No.: T 091-21619-00053
Part 70 Permit No.: T091-31600-00053
Facility: Natural gas-fired spray dryer, identified as E-110
Parameter: Alternative Operating Scenario 2 (also using the wet scrubber to control particulate emissions)
Limit: Two-hour average liquid-to-gas ratio greater than or equal to 0.0041 gallons per minute per pound per hour of air flow

Year: _____

	# of Deviations	Cumulative # of Deviations
Month 1		
Month 2		
Month 3		
Month 4		
Month 5		
Month 6		

☐ Deviation/s occurred on (date): _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Criterion Catalysts and Technologies, L.P
Source Address: 1800 East U.S. 12, Michigan City, Indiana 46360
Part 70 Permit No.: T091-31600-00053

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does 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: _____

Attachment A

Title 40: Protection of Environment

PART 60—Standards of Performance for New Stationary Sources

Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

SOURCE: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

§ 60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in § 60.731, “Mineral processing plant”).

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§ 60.731 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Calciner means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

Dryer means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

Installed in series means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

Mineral processing plant means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

§ 60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by § 60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under § 60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§ 60.734 Monitoring of emissions and operations.

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss

monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

§ 60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in § 60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with § 60.732 shall determine and record once each day, from the recordings of the monitoring devices in § 60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by § 60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in § 60.735(b) that is less than 90 percent of the average value recorded according to § 60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in § 60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to § 60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

§ 60.736 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of § 60.734(d) to determine the average change in pressure of the gas stream across the

scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 60.735(c).

§ 60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

Attachment B

Letters from U.S. EPA

Criterion Catalysts &Technologies L.P

T091-31600-00053

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
11/11/08

NOV 0 5 2008

REPLY TO THE ATTENTION OF:
AE-17J

Mr. Michael Burke
Plant Manager
Criterion Catalysts & Technologies, LP
1800 E. US 12
Michigan City, Indiana 46360-2098

Re: Alternative Monitoring Plan for NSPS Part 60, Subpart UUU

Dear Mr. Burke:

Thank you for your letters dated January 31, 2008, July 14, 2008, July 30, 2008, and October 14, 2008, and numerous follow up electronic mail to and phone calls with the U.S. Environmental Protection Agency, regarding your request for approval of an alternative to the monitoring requirements found in the Standards of Performance for Calciners and Dryers in Mineral Industries ("NSPS"), 40 CFR Part 60, Subpart UUU. Criterion Catalysts & Technologies ("Criterion") operates a spray dryer system that is subject to the NSPS. The spray dryer system is equipped with three baghouses ("baghouse system") followed by a non-Venturi type wet scrubber. In a previous letter dated September 6, 2007, EPA approved an alternative monitoring plant ("AMP") for Criterion's wet scrubber. In that letter, EPA informed Criterion that since the facility is relying on the baghouse system in addition to the scrubber to achieve compliance with the particulate matter emission limit in the NSPS at 40 CFR § 60.732, the facility needs to comply with the monitoring requirements in 40 CFR § 60.734(a) for the baghouse system or request approval of an AMP.

Via the January 31, 2008, letter, Criterion requested to continuously monitor the opacity of exhaust gases in the ductwork between the baghouse system and scrubber as an alternative to monitoring the opacity at the outlet of the scrubber. According to Criterion, the opacity of the emissions at the outlet of the scrubber cannot be measured accurately with an opacity monitor due to interference caused by liquid water in the exhaust gases from the wet scrubber. Criterion conducted stack testing in November and December 2007 to establish alternative parameters for its baghouse system and scrubber and has used this data to support its request to EPA for approval of its proposed AMP for the baghouse system.

Scrubber System

Criterion must comply with the AMP memorialized in the September 6, 2007, letter from EPA to Criterion. Regarding the average value of the liquid-to-gas ("L/G") ratio determined from the November and December 2007 performance testing, Criterion should compute the arithmetic average L/G ratio of all six test runs (measured at least every 15 minutes) to establish the L/G ratio average value.

Following this requirement, the L/G ratio average value is 0.005972 gallons per minute scrubbing liquid per pounds of gas per hour, based on data from the November and December 2007 performance testing and emailed to Ms. Linda Rosen, of my staff, on October 2 and 13, 2008. Exceedances of the L/G operating parameter would be defined as any two hour period when the average L/G ratio is less than 80 percent of the average L/G ratio from all measurements of the test runs in the most recent performance test that demonstrates compliance, or in this case, 0.004778.

Baghouse System

40 CFR § 60.13(i) specifically states that alternative monitoring procedures can be requested in the event that a monitoring system would not provide accurate measurements due to interference caused by liquid water; when alternative locations for installing continuous monitoring systems would enable accurate and representative measurements; or when the proposed continuous monitoring system adequately demonstrates a definite and consistent relationship between its measurements and the measurements of opacity.

Based on the information provided by Criterion, EPA approves Criterion's operation of a continuous opacity monitor system ("COMS") for the measurement of the opacity of the exhaust gases in the ductwork between the baghouse system and the scrubber.[1] Criterion must install, calibrate, maintain, and operate such COMS in accordance with the requirements of 40 CFR Part 60, including the General Provisions of Part 60 and the applicable Performance Specifications in Appendix B of Part 60. Per 40 CFR § 60.13(e)(1), all 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 six-minute period. Criterion must determine and record the average opacity from at least 720 or more data points (20 six-minute recorded averages) equally spaced over each two-hour period.

To establish the average opacity baseline value, Criterion must conduct performance testing in accordance with 40 CFR §§ 60.8 and 60.736. The performance test must consist of at least three test runs and the sampling time of each test run must be at least two hours. The 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 six-minute period. The COMS must determine and record the average opacity from 720 or more data points (20 six-minute recorded averages) equally spaced over each two-hour test run. Criterion must then determine the arithmetic average opacity value from three (or more) test runs. The opacity established during the performance test must represent the conditions in existence when the wet scrubber and baghouses are being properly operated and maintained to meet the emission limitation.

Criterion conducted performance testing on the spray dryer in November and December 2007 which demonstrated compliance with the particulate matter emission standard of 40 CFR Part 60, Subpart UUU. The facility conducted six two-hour test runs and conducted continuous opacity monitoring during each two-hour test run. The facility recorded the average six-minute

[1] Criterion has requested of EPA that the opacity at the monitor, rather than the stack, be used as the operating parameter value. EPA agrees that this is appropriate because the gases between the baghouse and scrubber are enclosed in the duct and have not been emitted to the stack.

opacity values over each two-hour test run period and determined the average opacity (from 20 six-minute averages) for each test run.

As requested by Criterion and for this performance test only, EPA will allow Criterion to use only the first three test runs from the November 2007 test to determine the average opacity value for the following reasons: (1) the November 2007 resulted in higher emission values than the December 2007 test and these higher emission rates demonstrated compliance with Subpart UUU; and (2) Criterion produces the product made in the November 2007 test about 65 percent of the time. In the future, Criterion must calculate the average opacity value from all valid test runs of a compliant performance test unless the federal or state regulatory agencies determine otherwise.

The arithmetic average opacity value for the three November 2007 test runs was 9.32 percent. The opacity at the monitor was calculated from the opacity at the stack by correcting the data for the differences in path lengths between the monitor (4 inches) and the stack (3 inches). Using Equation 1-7 in 40 CFR Part 60, Appendix B, Performance Specification 1, the opacity at the monitor for the November 2007 test, averaged over the three runs, is 12.17 percent. EPA then approved Criterion's use of a statistical analysis to determine the opacity value corresponding to the 99 percent Upper Confidence Level ("UCL") of a normal distribution of average opacity values.[2] The monitor opacity value that corresponds to the 99 percent UCL of the data is 14.02 percent. Based on the November 2007 performance test, EPA approves the use of 14.02 percent as the baseline average opacity value by which excess opacity is calculated. Excess opacity will be defined as any and all two-hour periods during which the average opacity between the baghouse system and the scrubber, measured at the monitor, is greater than the arithmetic average opacity of at least three test runs of the most recent performance test that demonstrated compliance with the particulate matter emission standard in 40 CFR Part 60, Subpart UUU (in this case 14.02 percent opacity). Criterion must submit reports of opacity exceedances to EPA and IDEM as required by 40 CFR § 60.735 and must follow the recordkeeping and reporting requirements of 40 CFR § 60.735. Per the NSPS, Criterion must maintain records of the opacity measured by the COMS for at least two years.

EPA has the right to rescind approval of this AMP if, among other things, information is obtained which contradicts assumptions or data submitted by Criterion, or if process or control operating conditions prove to be different than those used to establish this AMP. This AMP approval is site-specific to Criterion's NSPS spray dryer system located in Michigan City, Indiana.

[2] The equation is [Average Opacity + (T Test Value X Standard Deviation/Square Root of Number of Samples)]. In this case, the average opacity is 12.17, the t test value is 2.391 (from statistical tables based on 59 degrees of freedom), the standard deviation is 6.0024, and the number of samples is 60.

If you have any questions regarding this letter, please contact Linda H. Rosen, of my staff, at (312) 886-6810.

Sincerely yours,

George T. Czerniak
Chief
Air Enforcement and Compliance Assurance Branch

cc: Craig Henry, Acting Section Chief
Office of Enforcement-Air Section
Indiana Department of Environmental Management

Phil Perry, Chief
Office of Air Quality
Indiana Department of Environmental Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 1 8 2009

REPLY TO THE ATTENTION OF:

AE-17J

Mr. Geno Tolari
Site Manager
Criterion Catalysts & Technologies, LP
1800 E. US 12
Michigan City, Indiana 46360-2098

Re: Revisions to Alternative Monitoring Plan for NSPS Part 60, Subpart UUU

Dear Mr. Tolari:

Thank you for your letters dated March 17, 2009, April 14, 2009, and July 13, 2009 and our meeting of June 11, 2009, all of which address changes you are requesting to the alternative monitoring plan ("AMP") approved by the U.S. Environmental Protection Agency on November 5, 2008 for Criterion Catalysts & Technologies, located in Michigan City, Indiana ("Criterion").

The November 5, 2008 AMP pertains to the Standards of Performance for Calciners and Dryers in Mineral Industries ("NSPS"), 40 CFR Part 60, Subpart UUU which is applicable to Criterion's spray dryer system. The spray dryer system is equipped with three baghouses ("baghouse system") followed by a non-Venturi type wet scrubber. In a previous letter dated September 6, 2007, EPA approved an alternative monitoring plant ("AMP") for Criterion's wet scrubber. In the November 5, 2008 letter, EPA approved the AMP for the baghouse system. In short, the baghouse system AMP consists of continuous monitoring of the opacity of exhaust gases in the ductwork between the baghouse system and scrubber as an alternative to monitoring the opacity at the outlet of the scrubber.

EPA has reviewed and carefully considered all the data and information submitted by Criterion in its letters and during the June 11, 2009 meeting. Criterion is requesting three changes to the baghouse system AMP. Each of these changes is discussed below along with EPA's response.

Requested Change No. 1: Revised Calculation Procedure

Criterion is willing to accept the procedure of establishing the "baseline average opacity" as the 99 percent upper confidence limit ("UCL") of a normal distribution calculated from the November 1997 performance test. However, Criterion believes it would be inappropriate to apply this monitoring parameter to "any and all" two-hour periods. Criterion states that calculation of this value as described in the November 5, 2008 letter corresponds to the fact that 99 percent of the time the average of the opacities from any three, two-hour performance tests should be less than the calculated value. To apply this to "any and all' two-hour periods does not correctly correlate the appropriate performance criteria with the parameter that is being

measured. They state that the monitoring parameter should be applied to the average of any 3 consecutive, 2 hour periods. They propose monitoring opacity on the established 14.02 percent limit in 3 consecutive two-hour periods, and update this average every two hours. This means that the opacity average would be calculated on a six-hour average basis, updated every two hours.

EPA's Determination on Revised Calculation Procedure

EPA agrees with Criterion's conclusion. Since compliance with NSPS Subpart UUU is based on the average of three consecutive two-hour performance test runs, EPA believes it is appropriate to establish the operating parameter limit value and the ongoing operating parameter values each as an average of any three consecutive two-hour performance test runs.

Requested Change No. 2: Performance Testing and Establishment of Operating Value Limit

Criterion agrees that the baseline average opacity continuous operating parameter should be evaluated periodically for adequacy in assessing the performance of the baghouses. However, Criterion does not believe the baseline average opacity needs to be based on the most recent performance test. This requirement would in effect require a permit modification after every performance test.

EPA's Determination on Performance Testing and Establishment of Operating Value Limit

The NSPS does not specifically address this issue. However, the MACT and other EPA rules have generally required that operating parameter limits be based on the most recent performance testing (assuming such testing is conducted under representative operating conditions). The reason for this is that the parameter operating limit must be established such that compliance with the operating limit ensures compliance with the emission standard. If the current parameter operating limit is based on a recent performance test conducted under representative operating conditions that shows compliance with the emission standard, then there is assurance that the operating limit is set at a value to ensure continuous compliance.

Further, it is EPA's understanding that Criterion's current proposed Indiana Department of Environmental Management ("IDEM") permit for the spray dryer requires recurrent stack testing only once every five years. EPA believes that this is not a burden for Criterion to re-establish current operating parameter values every five years. The procedure for re-establishing the operating parameter can be written into the permit so that the permit does not need to be revised every time a new operating parameter value is set. If additional stack testing is conducted within the five year period between required stack tests, EPA will leave it up to the permitting authority (i.e., IDEM) to decide whether the baghouse operating parameters should be revised.

Based on discussions during the June 11, 2009 meeting, EPA understands that one of Criterion's concerns is that the current baseline opacity value may be lower than what could occur while still achieving compliance with the mass limit. Criterion should then conduct future stack testing under representative operating conditions in such a way that compliance with the mass limit is achieved while the opacity between the baghouse and scrubber is as close to its

maximum value possible (calculated as the average of three consecutive two-hour periods). EPA's agreement to allow Criterion to calculate the opacity as an average of three consecutive, two-hour periods will help even out any spikes in the opacity so that Criterion can maintain compliance with its opacity value.

Requested Change No. 3: How Violations are Determined

Criterion believes that the opacity monitoring parameter should be established in the permit as an action level to initiate corrective action procedures on the baghouse system, not a permit limit. Any time this action limit is exceeded, baghouse filter corrective action procedures will be initiated. Failure to initiate baghouse filter corrective action procedures following an exceedance of the "baseline average opacity" will be deemed a permit deviation. Criterion does not believe the baseline opacity value should be a parameter limit, which if exceeded, is an operating parameter violation.

EPA's Determination

While the stated operating parameter limits in NSPS Subpart UUU are not "action" limits but parameter limits, EPA will agree to Criterion's proposal (with some changes) only because of the ambiguity in Subpart UUU with respect to situations when both a dry and wet scrubber are used together for compliance purposes. EPA will agree to Critierion's proposal No. 2 in the July 13, 2009 letter, except that failure to initiate baghouse filter corrective action procedures would constitute a permit violation, not a permit deviation. Criterion should still maintain on-site records of all COM data including the six-hour average opacity values, updated every two hours. Any failures to initiate baghouse filter corrective actions procedures should be reported along with any scrubber operating parameter exceedances as part of the NSPS semi-annual report.

If you have any questions regarding this letter, please contact Linda H. Rosen, of my staff, at (312) 886-6810.

Sincerely yours,

William L MacDowell

for George T. Czerniak
Chief
Air Enforcement and Compliance Assurance Branch

cc: Craig Henry, Acting Section Chief
Office of Enforcement-Air Section
Indiana Department of Environmental Management

Phil Perry, Chief
Office of Air Quality
Indiana Department of Environmental Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
9/12/07

SEP 0 6 2007

REPLY TO THE ATTENTION OF

AE-17J

Mr. Michael Burke
Plant Manager
Criterion Catalysts & Technologies, LP
1800 E. US 12
Michigan City, Indiana 46360-2098

Re: Alternative Monitoring Request for NSPS Part 60, Subpart UUU

Dear Mr. Burke:

Thank you for your letter, dated August 6, 2007, to the United States Environmental Protection Agency (U.S. EPA), requesting approval of an alternative monitoring plan (AMP) to that found in the requirements of the New Source Performance Standards (NSPS) Part 60, Subpart UUU (Standards of Performance for Calciners and Dryers in Mineral Industries). Specifically, Criterion Catalysts & Technologies (Criterion) requests approval to continuously monitor the gas flow rate entering or exiting the wet scrubber in lieu of continuously monitoring the gas phase pressure drop across the scrubber. In addition, Criterion commits to continuously monitoring the scrubbing liquid flow rate to the scrubber which is also a requirement of 40 CFR Part 60, Subpart UUU.

40 CFR § 60.13 states that after receipt and consideration of written application, U.S. EPA may approve alternatives to any monitoring procedures or requirements of Part 60.

Criterion operates a spray dryer system that is subject to the NSPS Subpart UUU. The spray dryer system is equipped with three baghouses followed by a non-Venturi type wet scrubber. Although the facility currently relies on the baghouses to meet the particulate matter emission standard and a continuous opacity monitoring system to meet the monitoring requirements of Subpart UUU, the facility wants to incorporate the wet scrubber into its compliance approach to gain greater operational flexibility. For subject dryers equipped with wet scrubbers, the monitoring provisions of 40 CFR § 60.734(d) require owners or operators to install, calibrate, maintain and operate monitoring devices that continuously measure and record the pressure drop of the gas stream through the scrubber and the scrubber liquid flow rate. Criterion explains in its August 6, 2007, letter that the gas phase pressure drop has limited impact on the performance of a non-Venturi type scrubber and therefore is not an appropriate continuous monitoring parameter.

U.S. EPA concurs with Criterion that the gas phase pressure drop is not an appropriate continuous monitoring parameter for a wet scrubber that does not use a Venturi design for particulate matter emission control. In addition, U.S. EPA believes that the ratio of scrubbing liquid to flue gas treated (liquid-to-gas ratio) is an appropriate monitoring parameter for a wet scrubber. Therefore, pursuant to 40 CFR § 60.13, U.S. EPA approves the following alternative continuous monitoring system (CMS) plan for the scrubber on Criterion's spray dryer:

1. Criterion must install, operate and maintain continuous monitoring system(s) to measure and record the ratio of total liquid (or scrubbing liquid) flow rate to the scrubber to the gas flow rate entering or exiting the scrubber (flue gas treated). This ratio of scrubbing liquid to flue gas treated is the "liquid-to-gas ratio." The continuous monitoring system(s) must be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. The monitoring system(s) must meet the requirements of the General Provisions of Part 60. Additional procedures for location of the continuous monitoring system(s) which are contained in the applicable Performance Specifications of Appendix B of Part 60 must be used. 40 CFR § 60.13 requires, among other things, that each CMS complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period (i.e., the liquid-to-gas ratio must be recorded each successive 15-minute period). The CMS must determine and record the hourly average liquid-to-gas ratio of all recorded readings from four or more data points equally spaced over each one-hour period. The owner or operator must determine and record once each day, from the recordings of the continuous monitoring device(s), an arithmetic average over a two-hour period of the liquid-to-gas ratio.

2. Within 180 days of startup of the wet scrubber, Criterion must conduct a performance test for particulate matter at the spray dryer in accordance with 40 C.F.R. § 60.8. The performance test must consist of three test runs and the sampling time of each test run must be at least two hours. Criterion must notify U.S. EPA at least 30 days prior to conducting the performance test to allow U.S. EPA to review the protocol and to have an observer present during the test. During the performance testing, and using the continuous monitoring system(s), Criterion must measure and record the liquid-to-gas ratio at least every 15 minutes during the entire performance test and record the average liquid-to-gas ratio during each test run and the arithmetic average liquid-to-gas ratio of the three test runs. The operating limit established during the performance test must represent the conditions in existence when the wet scrubber and baghouses are being properly operated and maintained to meet the emission limitation.

3. Criterion must maintain records of the ratio of the scrubbing liquid to flue gas treated at the facility for at least two years.

4. Criterion must submit reports of exceedances of the liquid-to-gas ratio semi-annually to U.S. EPA and the Indiana Department of Environmental Management as required by 40 CFR § 60.735. Exceedances are defined as follows:

a. Any two hour period when the average liquid-to-gas ratio is less than 80 percent of the arithmetic average liquid-to-gas ratio of the three test runs of the most recent performance test that demonstrated compliance with the particulate matter standard in 40 CFR Part 60, Subpart UUU.

In addition, it is important to note that in Criterion's case, the baghouses are essential to achieve compliance with the particulate matter emission rate. Stack testing performed by Criterion shows that the baghouses achieve 98 percent efficiency of particulate removal. Therefore, the baghouses must also have monitoring systems in place that continuously monitor emissions and operations. 40 CFR § 60.734(a) states, among other things, that with the exception of process units which use wet scrubbers to comply with the mass emission standard of Subpart UUU, the owner or operator who uses a dry control device to comply with the mass emission standard of Subpart UUU must install, calibrate, maintain and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device. We do not believe that the exception noted above applies to Criterion because the scrubber alone is not being used to comply with the mass emission standard. Therefore, Criterion must comply with both 40 CFR § 60.734(a), which contains the monitoring requirements that apply to Criterion's baghouses and 40 CFR § 60.734(d), which contains the monitoring requirements that apply to Criterion's wet scrubber.

Via this letter, we are approving an AMP for Criterion's wet scrubber which satisfies the requirements of 40 C.F.R. § 60.734(d). Now Criterion must determine how it will comply with the monitoring provisions of § 60.734(a) for the baghouses. For a baghouse, 40 CFR § 60.734(a) requires the installation of a continuous opacity monitor to measure and record the opacity of emissions to the atmosphere. However, in the case of Criterion, it may not be feasible to measure the opacity at the outlet of the scrubber due to the interference from water from the wet scrubber. Therefore, Criterion may request alternative monitoring procedures to either continuously measure the opacity between the baghouses and the scrubber, or to measure alternative parameters. 40 CFR § 60.13(i) specifically states that alternative monitoring procedures can be requested in the event that a monitoring system would not provide accurate measurements due to interference caused by liquid water; when alternative locations for installing continuous monitoring systems would enable accurate and representative measurements; or when the proposed continuous monitoring system adequately demonstrates a definite and consistent relationship between its measurements and the measurements of opacity. In any event, any proposed alternative monitoring plan should include a justification for the request and a description of the parameters you plan to measure and their proposed values for demonstrating compliance, the measurement techniques, the monitoring frequency, and the averaging time.

If you have any questions regarding this letter, please contact Linda H. Rosen, of my staff, at (312) 886-6810.

Sincerely yours,

George T. Czerniak, Chief
Air Enforcement and Compliance Assurance Branch

cc: Craig Henry, Acting Section Chief
Office of Enforcement-Air Section
Indiana Department of Environmental Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 2 8 2012

REPLY TO THE ATTENTION OF:

Geno Tolari
Plant Manager
Criterion Catalysts and Technologies LLP
1800 E. US 12
Michigan City, Indiana 46360-2098

RE: Criterion Catalysts and Technologies LLP
Michigan City, Indiana
Request for Clarification
Title V Permit 091-21619-00053

Dear Mr. Tolari:

Thank you for your letter dated April 2, 2012, and received by U.S. Environmental Protection Agency June 15, 2012, requesting clarification to a provision in your Title V permit. Criterion's letter requests that the acceptable opacity level in the future be set as the highest value derived from any historic tests demonstrating compliance with the mass emission limit, assuming Criterion demonstrates that no significant changes have been made to the process or control system in intervening years. In subsequent conversations with Jesse Trent, the request was clarified to mean that Criterion is asking EPA to approve a permit limit for opacity that takes the average of stack test results from your stack test conducted in 2007 and the results of the upcoming November 2012 results.

You state that, "no significant changes have been made to the process or control system in intervening years." However, in subsequent discussions with Jesse Trent, EPA learned that the bags in your baghouse were replaced with a completely different type of bag, from a different manufacturer, which caused a significant decrease in your particulate matter (PM) emissions. EPA believes complete replacement of bags does in fact constitute a significant change in the control system. While this does not constitute a modification to the process, it is an improvement on your pollution control device, and EPA does not allow facilities to emit pollutants at a higher emission rate when a better pollution control device (in this case, higher efficiency bags in your baghouse) is in place.

After reviewing the information Criterion has submitted, EPA has determined that averaging the results of stack tests five years apart, and using two different types of pollution control equipment is not appropriate for this facility. Additionally Criterion should conduct its next stack test with the same parameters as the previously approved Alternative Monitoring Plan. This includes but is not limited to Criterion operating an

opacity monitor following the baghouse control system, and ensuring that the values monitored be compared against an opacity value established as the 99 percent upper confidence limit of a normal distribution based on three two-hour performance test runs that demonstrate compliance with the Subpart UUU limit.

If you have any questions about the issues addressed in this letter, please contact Ms. Shannon Downey, of my staff at 312-353-2151.

Sincerely,

Nidhi K. O'Meara
Acting Chief
Air Enforcement and Compliance Assurance Branch

cc: Phil Perry, Chief
Office of Air Quality
Indiana Department of Environmental Management

Josiah Balogun
Office of Air Quality Permit Review 2
Indiana Department of Environmental Management

CERTIFICATE OF MAILING

I, , certify that I sent a Request for Clarification by Certified Mail, Return Receipt Requested, to:

Geno Tolari
Plant Manager
Criterion Catalysts and Technologies LLP
1800 E. US 12
Michigan City, Indiana 46360-2098

I also certify that I sent a copy of the Request for Clarification by First-Class Mail to:

Phil Perry, Chief
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46206-2251

and

Josiah Balogun
Office of Air Quality Permit Review 2
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46206-2251

on the 7 day of Sept 2012.

Loretta Shaffer
Administrative Program Assistant
Planning and Administrative Section

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7667 6113

Attachment C

Title 40: Protection of Environment

PART 60—Standards of Performance for New Stationary Sources

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

SOURCE: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

(e) Affected facilities (*i.e.* heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_x standards under this subpart and the SO_2 standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

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 (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see § 60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see § 60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see § 60.17).

Dry flue gas desulfurization technology means a SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

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 (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); 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 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

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 for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO_2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit 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 steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. 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 in an attempt to circumvent the residence time requirements of this definition.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2 .

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.42c Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2 emissions limit or the 90 percent SO_2 reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2 emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 50 percent (0.50) of the potential SO_2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/h) or less;

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area; or

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the following:

(1) The percent of potential SO_2 emission rate or numerical SO_2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s = SO_2 emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a = 520 ng/J (1.2 lb/MMBtu);

K_b = 260 ng/J (0.60 lb/MMBtu);

K_c = 215 ng/J (0.50 lb/MMBtu);

H_a = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2 emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and § 60.8, compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c is based on the average percent reduction and the average SO_2 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho} o) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted E_{ao} (E_{ao} o). The E_{ho} o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_j)}{X_j}$$

Where:

E_{ho} o = Adjusted E_{ho} , ng/J (lb/MMBtu);

E_{ho} = Hourly SO_2 emission rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO_2 emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2 emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$ = Potential SO_2 emission rate, in percent;

$\%R_g$ = SO_2 removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$ = SO_2 removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$ ($\%R_g$ o) is computed from E_{ao} o from paragraph (e)(1) of this section and an adjusted average SO_2 inlet rate (E_{ai} o) using the following formula:

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g$ o = Adjusted $\%R_g$, in percent;

E_{ao} o = Adjusted E_{ao} , ng/J (lb/MMBtu); and

E_{ai} o = Adjusted average SO_2 inlet rate, ng/J (lb/MMBtu).

(ii) To compute E_{ai} o, an adjusted hourly SO_2 inlet rate (E_{hi} o) is used. The E_{hi} o is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

E_{hi} o = Adjusted E_{hi} , ng/J (lb/MMBtu);

E_{hi} = Hourly SO_2 inlet rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0; and

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in § 60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2 or CO_2 measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A-4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2 (or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in § 60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under § 60.43c(e)(4) shall follow the applicable procedures under § 60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO_2 concentrations and either O_2 or CO_2 concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO_2 emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under § 60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2 at the inlet or outlet of the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in § 3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to

demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under § 60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in § 60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in § 60.11 to demonstrate compliance with the applicable limit in § 60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using

Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in § 60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in § 60.43c(c) are not required to operate a COMS if they follow the applicable procedures in § 60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in § 60.45c(c). The CEMS specified in paragraph § 60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2 , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to

comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in § 60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An owner or operator of an affected facility that is subject to an opacity standard in § 60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section § 60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section § 60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for

establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§ 60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under § 60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in § 60.7, the owner or operator of an affected facility subject to the opacity limits in § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) 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 sample 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);

(iii) 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

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in § 60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Permit Modification

Source Description and Location

Source Name:	**Criterion Catalysts & Technologies, L.P.**
Source Location:	**1800 East US 12, Michigan City, IN 46360**
County:	**LaPorte**
SIC Code:	**2819 (Industrial Inorganic Chemicals, Not Elsewhere Classified)**
Operation Permit No.:	**T 091-31600-00053**
Operation Permit Issuance Date:	**November 13, 2012**
Significant Permit Modification No.:	**091-33571-00053**
Permit Reviewer:	**Deena Patton**

Existing Approvals

The source was issued Part 70 Operating Permit No. T091-31600-00053 on November 13, 2012. There have been no subsequent approvals issued.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective July 19, 2007, 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	Unclassifiable or attainment effective December 31, 2011.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) 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 NO_x emissions are considered when evaluating the rule applicability relating to ozone. LaPorte County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$

LaPorte 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 NOx 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.

(d) Other Criteria Pollutants
LaPorte County has been classified as attainment or unclassifiable in Indiana for all regulated pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a chemical plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of 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	347
PM_{10}	338
$PM_{2.5}$	338
SO_2	4.85
VOC	6.65
CO	49.63
NO_X	1105
GHGs as CO_2e	65,502.00
Single HAP	less than 10
Total HAPs	1.02

(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 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) These emissions are based upon Part 70 Operating Permit No. T091-31600-00053.

(c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Criterion Catalysts & Technologies, L.P. on August 26, 2013, relating to the replacement of boiler E-68 with two (2) new boilers (E-7 and E-68), the addition of baghouse E-612 to the railcar system and baghouse E-160 to the bulk bag loading process, and the revision of several equipment descriptions. The following is a list of the modified emission units and pollution control devices:

(a) Ten (10) storage bins, collectively identified as P-BINS, with each segment equipped with a fabric filter for a total of 17 fabric filters, individually identified as:

(1) Bin T-47 ("TEENS", divided into 4 segments, with four (4) baghouses E-195, E-196, E-197, and E-198), constructed in 1987, exhausting to stacks AA1, AA2,

AA3, and AA4, respectively;

(2) Bin T-49 ("TWENTIES", divided into 2 segments, with two (2) baghouses E-216 and E-217), constructed in 1987, exhausting to stacks AA7 and AA8, respectively;

(3) Bin T-48 ("THIRTIES" with one (1) baghouse E-199), constructed in 1987, exhausting to stack AA5;

(4) Bin T-50 ("FORTIES" with one (1) baghouse E-200), constructed in 1987, exhausting to stack AA6;

(5) Bin T-51 ("FIFTIES", divided into 2 segments with two (2) baghouses E-204 and EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;

(6) Bin T-53 ("SIXTIES", with one (1) baghouse E-201), constructed in 1987, exhausting to stack AA10;

(7) Bin T-52 ("SEVENTIES", with one (1) baghouse EA-130-009), constructed in 1978, exhausting to stack FF;

(8) Bin T-54 ("EIGHTIES", with one (1) baghouse E-202), constructed in 1987, exhausting to stack AA11;

(9) Bin T-94 ("NINETIES", divided into 2 segments with two (2) baghouses E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and

(10) Bin T-95 ("HUNDREDS", divided into 2 segments with two (2) baghouses E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.

(b) One (1) bulk bag loading process, constructed in 1983, identified as T-159, with two (2) baghouses, E-176, for particulate control and E-160 for venting, and exhausting to stacks BB and BA, respectively.

(c) One (1) bulk loading process, identified as E-239, consisting of one (1) sea container loading system, constructed in 1992, equipped with one (1) baghouse (E-190) for particulate control, and exhausting to stack CC.

(d) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as E-110, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B. This is an affected unit under 40 CFR 60, Subpart UUU.

(e) One (1) bulk loading process containing one (1) rail car loading system, constructed in 2006, identified as E-602, equipped with two (2) baghouses, E-190, for particulate control and E-612, for venting) and exhausting to stacks CC and GG, respectively.

(f) One (1) storage bin, constructed in 1951, identified as E-26, with one (1) baghouse for particulate control, and exhausting to stack V.

(g) One (1) storage bin, constructed in 1951, identified as E-52, with one (1) baghouse for

particulate control, and exhausting to stack K.

(h) Two (2) day bins, both constructed in 1975, identified as EX-422 and EX-423, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.

(i) Two (2) sodium aluminate reactors, identified as F-31, constructed in 1968, and F-32, constructed in 1972, and exhausting to stacks R and S, respectively.

(j) Two (2) aluminum sulfate reactors, identified as F-34, constructed in 1968, and F-37, constructed in 1972, and exhausting to stacks T and U, respectively.

(k) Two (2) mixers, both constructed in 1975, identified as EX-421, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.

(l) Two (2) calciners, identified as EX-300-25, constructed in 1965, exhausting to stacks P4, H1 and H2, and EX-130-005, constructed in 1975, exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. NO_2 emissions from EX-300-25 and EX-130-005 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

(m) One (1) pneumatic transfer process from the fines grinder system, constructed in 1975, identified as EX-104, equipped with one (1) baghouse for particulate control, and exhausting to stack J.

(n) Bag loadout and other particulate matter processes, constructed in 1975, and a screener and fines grinder feed system, constructed in 2005, collectively identified as EX-631-023, equipped with one (1) baghouse for particulate control, and exhausting to stack F.

(o) One (1) natural gas-fired dryer, constructed in 1965, identified as EX-300-23, rated at 13.8 MMBtu/hr, and exhausting to stack P1.

(p) One (1) natural gas-fired low temperature dryer, constructed in 1965 and modified in 2000, identified as FX-300-35K, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.

Maximum capacities and throughputs not listed in the descriptions above have been included in an IDEM, OAQ confidential file.

Specifically Regulated Insignificant Activities

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

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) One (1) natural gas fired boiler, constructed in 2013, identified as E-7, rated at 150 HP, and exhausting to Stack M.

(b) Degreasing not exceeding 145 gallons per 12 months and not subject to a NESHAP. [326 IAC 8-3-2, 326 IAC 8-3-5].

(c) One (1) Area Dust Collector, identified as ADC #2. This area dust collector controls all emissions from insignificant activities that exhaust inside the building. [326 IAC 6-3-2]

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or

three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, constructed in 2013, identified as E-68, rated at 250 HP, and exhausting to Stack N.

This is an affected unit under 40 CFR 60, Subpart Dc.

Enforcement Issues

There are no pending enforcement actions related to this modification.

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	0.13
PM_{10}	0.54
$PM_{2.5}$	0.54
SO_2	0.04
VOC	0.39
CO	5.95
NO_X	7.08
GHGs	8,549
Single HAPs	less than 10
Total HAPs	0.13

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

This modification is not subject to the source modification requirements under 326 IAC 2-7-10.5(a), since the new boilers are exempt units as described in 326 IAC 2-1.1-3. The changes will be incorporated into the permit as a Significant Permit Modification under 326 IAC 2-7-12(d), since there is a new incorporation 40 CFR Part 60, Subpart Dc and case by case determination of emission limits.

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**
E-7 & E-68	0.13	0.54	0.54	0.04	0.39	5.95	7.08	8,549
Total for Modification	0.13	0.54	0.54	0.04	0.39	5.95	7.08	8,549
Significant Level	25	15	10	40	40	100	40	75,000 CO_2e

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

(a) The one (1) natural gas fired boiler, identified as E-7, is not subject to the requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, (40 CFR 60.40c, Subpart Dc), due to that it has a heat capacity less than 10 MMBtu/hr.

(b) The one (1) natural gas fired boiler, identified as E-68, is subject to the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40c, Subpart Dc, which is incorporated by reference as 326 IAC 12. The unit is subject to the following portions of Subpart Dc.

(1) 40 CFR 60.40c(a) and (b)
(2) 40 CFR 60.41c
(3) 40 CFR 60.68(a)(1), (g), (i), and (j)

NESHAP:

(b) The two (2) natural gas fired boilers, identified as E-7 and E-68, are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, Subpart DDDDD due to the source is not a major source of HAPs.

(c) The two (2) natural gas fired boilers, identified as E-7 and E-68, are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, Subpart JJJJJJ, since the two (2) natural gas fired boilers, identified as E-7 and E-68 use natural gas which is not subject to this subpart.

(d) 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	**Control Device Used**	**Emission Limitation** (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)
E-7 and E-68	N	N	<100	<100	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of the tw (2) natural gas fired boilers, identified as E-7 and E-68, 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)
Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The first report is due no later than July 1, 2015, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2, the particulate matter (PM) from the two (2) natural gas fired boilers, identified as E-7 and E-68, shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

Where: Pt = Pounds of particulate matter emitted per million (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Unit	Construction Date	Q	Pt
E-7 and E-68	2013	6.28 + 10.21 = 16.50	0.53

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) natural gas fired boilers (E-7 and E-68) are not subject to the requirements of 326 IAC 6-3-2, since they are sources of indirect heating.

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 monitoring applicable to this modification is as follows:

Emission Unit	Control	Operating Parameters	Frequency	Range	Excursions and Exceedances
E-602	Baghouse (E-612)	Visible Emission Notations	Daily	Normal - Abnormal	Response Steps
T-159	Baghouse (E-160)	Visible Emission Notations	Daily	Normal - Abnormal	Response Steps

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 091-31600-00053. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(~~c~~**a**) Ten (10) ~~silos~~ **storage bins**, collectively identified as ~~P-SILOS~~**P-BINS**, with each segment equipped with a fabric filter for a total of 17 fabric filters, individually identified as:

(1) ~~silo 1~~ **Bin T-47 ("TEENS", divided into 4 segments, with four (4) baghouses** ~~(segments~~ E-195, E-196, E-197, and E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;

(2) ~~silo 2~~ **Bin T-49 ("TWENTIES", divided into 2 segments, with two (2) baghouses** ~~(segments~~ E-216 and E-217), constructed in 1987, exhausting to

stacks AA7 and AA8, respectively;

(3) ~~silo 3~~ **Bin T-48 ("THIRTIES" with one (1) baghouse** ~~(segment~~ E-199), constructed in 1987, exhausting to stack AA5;

(4) ~~silo 4~~ **Bin T-50 ("FORTIES" with one (1) baghouse** ~~(segment~~ E-200), constructed in 1987, exhausting to stack AA6;

(5) ~~silo 5~~ **Bin T-51 ("FIFTIES", divided into 2** ~~(~~segments **with two (2) baghouses** E-204 and EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;

(6) ~~silo 6~~ **Bin T-53 ("SIXTIES", with one (1) baghouse** ~~(segment~~ E-201), constructed in 1987, exhausting to stack AA10;

(7) ~~silo 7~~ **Bin T-52 ("SEVENTIES", with one (1) baghouse** ~~(segment~~ EA-130-009), constructed in 1978, exhausting to stack FF;

(8) ~~silo 8~~ **Bin T-54 ("EIGHTIES", with one (1) baghouse** ~~(segment~~ E-202), constructed in 1987, exhausting to stack AA11;

(9) ~~silo 9~~ **Bin T-94 ("NINETIES", divided into 2** ~~(~~segments **with two (2) baghouses** E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and

(10) ~~silo 10~~ **Bin T-95 ("HUNDREDS", divided into 2** ~~(~~segments **with two (2) baghouses** E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.

(~~g~~**b**) One (1) bulk bag loading process, constructed in 1983, identified as ~~P-BBL~~ ~~(~~T-159~~)~~, with two (2) baghouses, E-176 for particulate control **and E-160 for venting**, and exhausting to stack BB **and BB, respectively**.

(~~h~~**c**) **One (1) bulk loading process, identified as E-239, consisting of one (1) sea container loading system, constructed in 1992, equipped with one (1) baghouse (E-190) for particulate control, and exhausting to stack CC.** ~~One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) rail car loading system, constructed in 1983, and one seal and container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.~~

(~~e~~**d**) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as ~~P-SD~~ ~~(~~E-110~~)~~, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B. This is an affected unit under 40 CFR 60, Subpart UUU.

(~~d~~**e**) One (1) bulk loading process containing one (1) rail car loading system, constructed in 2006, identified as ~~P-BLR (E-239)~~**E-602**, exhausting to stack GG and equipped with ~~one~~**two** (~~1~~**2**) baghouse**s,** E-190 **for particulate control, and E-612 for venting,** ~~for particulate control~~, **exhausting to stacks CC and GG, respectively**.

(~~a~~**f**) One (1) storage bin, constructed in 1951, identified as ~~P-SB1~~ ~~(~~E-26~~)~~, with one (1) baghouse for particulate control, and exhausting to stack V.

(~~b~~**g**) One (1) storage bin, constructed in 1951, identified as ~~P-SB2 (~~E-52~~)~~, with one (1) baghouse for particulate control, and exhausting to stack K.

(~~d~~**h**) Two (2) day bins, both constructed in 1975, identified as ~~S-DBE (~~EX-422~~)~~ and ~~S-DBW (~~EX-423~~)~~, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.

(~~e~~**i**) Two (2) sodium aluminate reactors, identified as ~~P-SAR1 (~~F-31~~)~~, constructed in 1968, and ~~P-SAR2 (~~F-32~~)~~, constructed in 1972, and exhausting to stacks R and S, respectively.

(~~f~~**j**) Two (2) aluminum sulfate reactors, identified as ~~P-ASR1 (~~F-34~~)~~, constructed in 1968, and ~~P-ASR2 (~~F-37~~)~~, constructed in 1972, and exhausting to stacks T and U, respectively.

(~~i~~**k**) Two (2) mixers, both constructed in 1975, identified as ~~S-MIX (~~EX-421~~)~~, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.

(~~j~~**l**) Two (2) calciners, identified as ~~S-C1 (~~EX-**300-25**579~~)~~, constructed in 1965, exhausting to stacks P4, H1 and H2, and ~~S-C2 (~~EX-**130-005**579~~)~~, constructed in 1975, exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. NO_2 emissions from ~~S-C1 and S-C2~~ **EX-300-25 and EX-130-005** are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

(~~k~~**m**) One (1) pneumatic transfer process from the fines grinder system, constructed in 1975, identified as ~~S-PT (~~EX-104~~)~~, equipped with one (1) baghouse for particulate control, and exhausting to stack J.

(~~l~~**n**) Bag loadout and other particulate matter processes, constructed in 1975, and a screener and fines grinder feed system, constructed in 2005, collectively identified as ~~ADC #1 (S-DC1 (~~EX-631-023~~))~~, equipped with one (1) baghouse for particulate control, and exhausting to stack F.

(~~m~~**o**) One (1) natural gas-fired dryer, constructed in 1965, identified as ~~S-D1 (~~EX-300-23~~)~~, rated at 13.8 MMBtu/hr, and exhausting to stack P1.

(~~n~~**p**) One (1) natural gas-fired low temperature dryer, constructed in 1965 and modified in 2000, identified as ~~SD-3 (~~FX-300-35K~~)~~, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.

~~(p) One (1) natural gas-fired boiler, constructed in 1961, identified as BLR 2 (E-68), rated at 15.1 MMBtu/hr, and exhausting to Stack N.~~

Maximum capacities and throughputs not listed in the descriptions above have been included in an IDEM, OAQ confidential file.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(14)]

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

(~~p~~**a**) **Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:**

(1) One (1) natural gas fired boiler, constructed in 2013, identified as E-7, rated at 150 HP, and exhausting to Stack M.

(~~a~~**b**) Degreasing not exceeding 145 gallons per 12 months and not subject to a NESHAP. [326

IAC 8-3-2, 326 IAC 8-3-5].

(~~b~~**c**) One (1) Area Dust Collector, identified as ADC #2. This area dust collector controls all emissions from insignificant activities that exhaust inside the building. [326 IAC 6-3-2]

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, constructed in 2013, identified as E-68, rated at 250 HP, and exhausting to Stack N.

This is an affected unit under 40 CFR 60, Subpart Dc.

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SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(~~c~~**a**) Ten (10) ~~silos~~ **storage bins**, collectively identified as ~~P-SILOS~~**P-BINS**, with each segment equipped with a fabric filter for a total of 17 fabric filters, individually identified as:

(1) ~~silo 1~~ **Bin T-47 ("TEENS", divided into 4 segments, with four (4) baghouses** (~~segments~~ E-195, E-196, E-197, and E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;

(2) ~~silo 2~~ **Bin T-49 ("TWENTIES", divided into 2 segments, with two (2) baghouses** (~~segments~~ E-216 and E-217), constructed in 1987, exhausting to stacks AA7 and AA8, respectively;

(3) ~~silo 3~~ **Bin T-48 ("THIRTIES" with one (1) baghouse** (~~segment~~ E-199), constructed in 1987, exhausting to stack AA5;

(4) ~~silo 4~~ **Bin T-50 ("FORTIES" with one (1) baghouse** (~~segment~~ E-200), constructed in 1987, exhausting to stack AA6;

(5) ~~silo 5~~ **Bin T-51 ("FIFTIES", divided into 2** (~~s~~segments **with two (2) baghouses** E-204 and EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;

(6) ~~silo 6~~ **Bin T-53 ("SIXTIES", with one (1) baghouse** (~~segment~~ E-201), constructed in 1987, exhausting to stack AA10;

(7) ~~silo 7~~ **Bin T-52 ("SEVENTIES", with one (1) baghouse** (~~segment~~ EA-130-009), constructed in 1978, exhausting to stack FF;

(8) ~~silo 8~~ **Bin T-54 ("EIGHTIES", with one (1) baghouse** (~~segment~~ E-202),

constructed in 1987, exhausting to stack AA11;

(9) ~~silo 9~~ **Bin T-94 ("NINETIES", divided into 2** ~~(~~segments **with two (2) baghouses** E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and

(10) ~~silo 10~~ **Bin T-95 ("HUNDREDS", divided into 2** ~~(~~segments **with two (2) baghouses** E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.

(~~g~~**b**) One (1) bulk bag loading process, constructed in 1983, identified as ~~P-BBL~~ ~~(~~T-159~~)~~, with two (2) baghouses, ~~(E-160 and~~ E-176~~)~~ for particulate control **and E-160 for venting**, and exhausting to stack BB **and BA, respectively**.

(~~h~~**c**) **One (1) bulk loading process, identified as E-239, consisting of one (1) sea container loading system, constructed in 1992, equipped with one (1) baghouse (E-190) for particulate control, and exhausting to stack CC.** ~~One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) rail car loading system, constructed in 1983, and one seal and container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.~~

(~~q~~**e**) One (1) bulk loading process containing one (1) rail car loading system, constructed in 2006, identified as ~~P-BLR (E-239)~~**E-602**, exhausting to stack GG and equipped with ~~one~~**two** (~~1~~**2**) baghouse**s** ~~(~~E-190 **for particulate control and E-612 for venting,** ~~for particulate control.~~**, exhausting to stacks CC and GG, respectively.**

(~~a~~**f**) One (1) storage bin, constructed in 1951, identified as ~~P-SB1~~ ~~(~~E-26~~)~~, with one (1) baghouse for particulate control, and exhausting to stack V.

(~~b~~**g**) One (1) storage bin, constructed in 1951, identified as ~~P-SB2~~ ~~(~~E-52~~)~~, with one (1) baghouse for particulate control, and exhausting to stack K.

(~~d~~**h**) Two (2) day bins, both constructed in 1975, identified as ~~S-DBE~~ ~~(~~EX-422~~)~~ and ~~S-DBW~~ ~~(~~EX-423~~)~~, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.

(~~e~~**i**) Two (2) sodium aluminate reactors, identified as ~~P-SAR1~~ ~~(~~F-31~~)~~, constructed in 1968, and ~~P-SAR2~~ ~~(~~F-32~~)~~, constructed in 1972, and exhausting to stacks R and S, respectively.

(~~f~~**j**) Two (2) aluminum sulfate reactors, identified as ~~P-ASR1~~ ~~(~~F-34~~)~~, constructed in 1968, and ~~P-ASR2~~ ~~(~~F-37~~)~~, constructed in 1972, and exhausting to stacks T and U, respectively.

(~~i~~**k**) Two (2) mixers, both constructed in 1975, identified as ~~S-MIX~~ ~~(~~EX-421~~)~~, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.

(~~j~~**l**) Two (2) calciners, identified as ~~S-C1~~ ~~(~~EX-**300-25**~~579)~~, constructed in 1965, exhausting to stacks P4, H1 and H2, and ~~S-C2~~ ~~(~~EX-**130-005**~~579)~~, constructed in 1975, exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. NO_2 emissions from ~~S-C1 and S-C2~~**EX-300-25 and EX-130-005** are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

(~~k~~**m**) One (1) pneumatic transfer process from the fines grinder system, constructed in 1975, identified as ~~S-PT~~ ~~(~~EX-104~~)~~, equipped with one (1) baghouse for particulate control, and exhausting to stack J.

(~~l~~**n**) Bag loadout and other particulate matter processes, constructed in 1975, and a screener and fines grinder feed system, constructed in 2005, collectively identified as ~~ADC #1 (S-DC1 (~~EX-631-023~~))~~, equipped with one (1) baghouse for particulate control, and exhausting to stack F.

(~~m~~**o**) One (1) natural gas-fired dryer, constructed in 1965, identified as ~~S-D1 (~~EX-300-23~~)~~, rated at 13.8 MMBtu/hr, and exhausting to stack P1.

(~~n~~**p**) One (1) natural gas-fired low temperature dryer, constructed in 1965 and modified in 2000, identified as ~~SD-3 (~~FX-300-35K~~)~~, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.

Maximum capacities and throughputs not listed in the descriptions above have been included in an IDEM, OAQ confidential file.

(The information describing the process contained in this emissions unit 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) Minor Limits [326 IAC 2-2]

(a) The emissions of PM from the bulk bag loading process (~~P-BBL~~**T-159**) and the bulk loading process (~~P-BL~~**E-239**) shall each be limited to less than ~~2.85~~ **5.69** pounds per hour. Compliance with the above limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 1983 modification.

(b) The ~~fourteen~~ **seventeen**(~~14~~**17**) ~~silo~~ **storage bin** segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, **EA-130-012,** E-201, **EA-130-009,** E-202, **E-130,** E-193, E-203, and E-194) shall be subject to the following:

(1) The PM emissions from each of the ~~fourteen~~ **seventeen** (~~14~~**17**) ~~silo~~ **storage bin** segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, **EA-130-012,** E-201, **EA-130-009,** E-202, **E-130,** E-193, E-203, and E-194) shall be limited to less than 0.407 pounds per hour.

(2) The PM_{10} ~~and $PM_{2.5}$~~ emissions from each of the ~~fourteen~~ **seventeen** (~~14~~**17**) ~~silo~~ **storage bin** segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, **E-130-012,** E-201, **EA-130-009,** E-202, **E-130,** E-193, E203, and E-194) shall be limited to less than 0.24 pounds per hour.

Compliance with the above limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 1987 modification.

(c) The PM and PM10 emissions from the bulk loading process identified as ~~P-BLR~~ **E-602** shall be limited to 0.12 pounds per hour. Compliance with the above limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 2006 modification.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Process), the allowable particulate emission rate from each of the facilities listed below shall be limited as shown in the following table:

Unit ID	Allowable Emission Rate (lb/ton throughput)
~~P-SB1~~ (E-26)	1.78
~~P-SB2~~ (E-52)	1.78
~~P-SILOS~~**P-BINS**	1.97
~~S-DBE~~ (EX-422)	3.03
~~S-DBW~~ (EX-423)	3.03
~~P-SAR1~~ (F-31)	1.89
~~P-SAR2~~ (F-32~~)~~	1.89
~~P-ASR1~~ (F-34~~)~~	1.87
~~P-ASR2~~ (F-37~~)~~	1.87
~~P-BBL~~ (T-159~~)~~	5.30
~~P-BL (E-190)~~ **E-239**	1.90
~~S-MIX~~ (EX-421~~)~~	3.34
~~S-C1~~ (EX-~~579)~~**300-25**	3.63
~~S-C2~~ (EX-~~579)~~**130-005**	3.63
~~S-PT~~ (EX-104~~)~~	6.48
~~ADC#1~~ (EX-631-023~~)~~	6.95
~~S-D1~~ (EX-300-23~~)~~	2.73
~~P-BLR (E-239)~~**E-602**	1.78

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

A Preventive Maintenance Plan (PMP) is required for ~~S-C1, S-C2, P-SB1, P-SB2, P-BBL, P-BL, and P-BLR~~ **EX-300-25, EX-130-005, E-26, E-52, T-159, E-239, and E-602** and the respective control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.4 Particulate Controls

(a) In order to comply with Conditions D.1.1 and D.1.2, each baghouse associated with the following processes shall be in operation and control emissions at all times that the process is in operation:

(1) One (1) storage bin identified as ~~P-SB1~~ (E-26~~)~~;

(2) One (1) storage bin identified as ~~P-SB2~~ (E-52~~)~~;

(3) One (1) day bin identified as ~~S-DBE~~ (EX-422~~)~~;

(4) One (1) day bin identified as ~~S-DBW~~ (EX-423~~)~~;

(5) One (1) bulk bag loading process identified as ~~P-BBL~~ (T-159~~)~~;

(6) One (1) bulk loading process containing one rail car loading system, identified as ~~P-BL (E-190)~~ **E-239, consisting of one (1) sea container loading system** ~~and one (1) sealand container loading system identified as P-BL (E-190);~~

(7) Two (2) mixers identified as ~~S-MIX~~ (EX-421~~)~~;

(8) Two (2) calciners identified as ~~S-C1 and SC-2~~ (EX-~~579)~~**300-25 and EX-130-005**;

(9) One (1) pneumatic transfer process for the fines grinder system identified as ~~S-PT~~ (EX-104~~)~~;

(10) Bag loadout, screener, fines grinder system and other particulate matter processes identified as ~~ADC#1~~ ~~(~~EX-631-023~~)~~; and

(11) One (1) bulk loading process containing one rail car loading system, identified as ~~P-BLR (E-239)~~**E-602**.

(b) In order to comply with Condition D.1.2, the fabric filters for particulate control shall be in operation and control the emissions from ~~P-SILOS~~**P-BINS** at all times that the ~~silos~~ **bins** are in operation.

***

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

D.1.6 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the exhaust from the stacks for ~~S-C1~~ **EX-300-25 and EX-130-005** (DCC baghouse), ~~S-C2 (DCC baghouse),~~ ~~P-SB1~~ **E-26** (stack V), ~~P-SB2~~ **E-52** (stack K), ~~P-BBL~~ **T-159** (stack BB), ~~P-BL~~ **E-239** (stack CC), and ~~P-BLR~~ **E-602** stack ~~GG~~**CC**) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal

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~~D.1.7 Parametric Monitoring [40 CFR 64]~~

~~The Permittee shall record the pressure drop across the baghouses used in conjunction with the processes identified as S-C1, S-C2, P-SB1, P-SB2, P-BBL, P-BL, and P-BLR at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 1.0 to 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. A pressure 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. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.~~

~~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.~~

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

D.1.~~8~~**7** Record Keeping Requirements

(a) To document the compliance status with Condition D.1.6, the Permittee shall maintain a daily record of visible emission notations of the process/control device stack exhausts. 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, (i.e. the process did not operate that day).

~~(b) To document the compliance status with Condition D.1.7, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the process. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).~~

(~~c~~**b**) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

***

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

~~(q) One (1) natural gas-fired boiler, constructed in 1961, identified as BLR 2 (E-68), rated at 15.1 MMBtu/hr, and exhausting to Stack N.~~

(~~p~~a) **Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:**

(1) One (1) natural gas fired boiler, constructed in 2013, identified as E-7, rated at 150 HP, and exhausting to Stack M

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, constructed in 2013, identified as E-68, rated at 250 HP, and exhausting to Stack N.

This is an affected unit under 40 CFR 60, Subpart Dc.

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

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

D.2.1 Particulate Matter Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-~~3~~4]

~~Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the particulate matter emission from the natural gas-fired boiler, identified as BLR2 shall not exceed 0.8 lbs per MMBtu.~~

Pursuant to 326 IAC 6-2, the particulate matter (PM) from the two (2) natural gas fired boilers, identified as E-7 and E-68, shall be limited by the following equation:

Pt= 1.09/Q^0.26

Where: Pt = Pounds of particulate matter emitted per million (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Unit	Construction Date	Q	Pt
E-7 and E-68	2013	6.28 + 10.21 = 16.50	0.53

***

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(~~a~~**d**) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as ~~P-SD~~ (E-110~~)~~, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B. This is an affected unit under 40 CFR 60, Subpart UUU.

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

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

D.3.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

The PM, PM10 and PM2.5 emissions from the natural gas-fired spray dryer, identified as ~~P-SD~~ (E-110~~)~~, shall be limited to 6.62 pounds per hour, each. Compliance with the above limit shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the 2006 modification.

Compliance Determination Requirements

D.3.2 Particulate Controls

In order to comply with Condition D.3.1, the Permittee shall control particulate emissions from the natural gas-fired spray dryer, identified as ~~P-SD~~ (E-110~~)~~, according to one of the following Operating Scenarios:

(a) Alternative Operating Scenario 1:

(1) The baghouses shall be in operation and control emissions at all times that the ~~PSD~~ **E-110** dryer is in operation.

***

(b) Alternative Operating Scenario 2:

(1) The baghouses shall be in operation and control emissions at all times that the ~~P-SD~~ **E-110** dryer is in operation.

(2) The wet scrubber shall be in operation and control emissions at all times that the ~~PSD~~ **E-110** dryer is in operation.

***

D.3.3 Testing Requirements [326 IAC 2-7-6(1)-(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM, PM_{10} and $PM_{2.5}$ testing for the spray dryer identified as ~~P-SD~~ (E-110~~)~~, utilizing methods as approved by the Commissioner. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C- Performance Testing.

***

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(~~a~~**b**) Degreasing not exceeding 145 gallons per 12 months and not subject to a NESHAP. [326 IAC 8-3-2, 326 IAC 8-3-5].

(~~b~~**c**) One (1) Area Dust Collector, identified as ADC #2. This area dust collector controls all emissions from insignificant activities that exhaust inside the building. [326 IAC 6-3-2]

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

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

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) The owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

(~~a~~**1**) Equip the ~~cleaner~~ **degreaser** with a cover;

(~~b~~**2**) Equip the ~~cleaner~~ **degreaser** with a ~~facility~~**device** for draining cleaned parts;

(~~c~~**3**) Close the degreaser cover whenever parts are not being handled in the cleaner;

(~~d~~**4**) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(~~e~~**5**) Provide a permanent, conspicuous label **that lists the operating requirements in subdivisions (3), (4), (6), and (7);** ~~summarizing the operation requirements;~~

(~~f~~**6**) Store waste solvent only in ~~covered~~ **closed** containers**;** ~~and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.~~

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as

those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5**8**]

~~(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:~~

~~(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:~~

~~(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));~~

~~(B) The solvent is agitated; or~~

~~(C) The solvent is heated.~~

~~(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.~~

~~(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).~~

~~(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.~~

~~(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):~~

~~(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.~~

~~(B) A water cover when solvent is used is insoluble in, and heavier than, water.~~

~~(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.~~

~~(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:~~

~~(1) Close the cover whenever articles are not being handled in the degreaser.~~

~~(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.~~

~~(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.~~

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaning Degreasers) users, providers, and manufacturers of solvents for use in cold cleaning degreasers on or after January 1, 2015, except for solvents intended to be used to clean electronic components, shall ensure that the following requirements are met:

(a) No person shall cause or allow the sale of solvents for use in cold cleaner degreasing operations with a VOC composite partial vapor pressure, when diluted at the manufacturer's recommended blend and dilution, that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(b) The Permittee shall maintain all of the following records for each cold cleaning degreaser solvent purchase:

(1) The name and address of the solvent supplier.

(2) The date of purchase.

(3) The type of solvent.

(4) The volume of each unit of solvent.

(5) The total volume of the solvent.

(6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(c) All records required by Condition D.4.2(b) shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

****

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) natural gas-fired spray dryer, constructed in 1956 and modified in 1995 and 2006, identified as ~~P-SD~~ ~~(~~E-110~~)~~, with a burner (E-336) rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses (E-357A, E-357B, E-357C). Particulate emissions are controlled using two operating scenarios. In Alternative

Operating Scenario 1, particulate is controlled using three (3) baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses (E-357A, E-357B, E-357C) in parallel (integral to the process) and a wet scrubber (T-107). In both operating scenarios, emissions exhaust through stack B.

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

New Source Performance Standard (NSPS) [40 CFR 60]

E.1.1 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the natural gas-fired spray dryer, identified as ~~P-SD (~~E-110~~)~~, except when otherwise specified in 40 CFR Part 60, Subpart UUU.

E.1.2 New Source Performance Standards for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart UUU, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart UUU (included as Attachment A), which are incorporated by reference as 326 IAC 12, for the natural gas-fired spray dryer, identified as ~~P-SD (~~E-110~~)~~ except as provided in Condition E.1.3:

(1) 40 CFR 60.730(a) and (c);
(2) 40 CFR 60.731;
(3) 40 CFR 60.732;
(4) 40 CFR 60.733;
(5) 40 CFR 60.734(a) and (d);
(6) 40 CFR 60.735;
(7) 40 CFR 60.736; and
(8) 40 CFR 60.737.

E.1.3 New Source Performance Standards for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart A, USEPA has approved an alternative monitoring plan for the wet scrubber utilized in Operating Scenario 2 in a letter dated September 6, 2007. In subsequent letters dated September 6, 2007, November 5, 2008 and December 18, 2009, USEPA clarified the manner in which baghouse opacity readings are to be evaluated while operating under Operating Scenario 2. These letters are included in Attachment B of this permit.

E.1.4 Reporting Requirements as per the AMP approved by United States Environmental Protection Agency (USEPA) in a letter dated December 18, 2009

Any failures to initiate baghouse filter corrective actions procedures shall be reported along with any scrubber operating parameter exceedances as part of the NSPS semi-annual report.

***

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO2 emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and

five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs, or whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1), whichever is lower including:

(1) One (1) natural gas-fired boiler, constructed in 2013, identified as E-68, rated at 250 HP, and exhausting to Stack N.

This is an affected unit under 40 CFR 60 Subpart Dc.

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

New Source Performance Standard (NSPS) [40 CFR 60]

E.2.1 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the natural gas-fired boiler, identified as E-68, except when otherwise specified in 40 CFR Part 60, Subpart Dc.

E.2.2 New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc] [326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment C), which are incorporated by reference as 326 IAC 12, for the natural gas-fired fired boiler, identified as E-68

(1) 40 CFR 60.40c(a) and (b)
(2) 40 CFR 60.41c
(3) 40 CFR 60.68(a)(1), (g), (i), and (j)

***

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Semi-Annual Report

40 CFR Part 60, Subpart UUU Semi-Annual Report

Source Name:	Criterion Catalysts and Technologies, L.P.
Source Address:	1800 East U.S. 12, Michigan City, Indiana 46360
Permit Renewal No.:	T 091-21619-00053
Part 70 Permit No.:	T091-31600-00053
Facility:	Natural gas-fired spray dryer, identified as ~~P-SD~~ (~~E-110~~)
Parameter:	Alternative Operating Scenario 2 (also using the wet scrubber to control particulate emissions)
Limit:	Two-hour average liquid-to-gas ratio greater than or equal to 0.0041 gallons per minute per pound per hour of air flow

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 No. Significant Permit Modification 091-33571-00053. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Deena Patton 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) 234-5400 or toll free at 1-800-451-6027 extension 4-5400.

(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
Emission Summary
Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena patton

A summary of the emissions calculations for the significant emission units at this source is included in the table below. The PTE figures are from the TSD for T091-6789-00053, issued on May 1, 2001, except as noted. The PTE figures for SEACAP, SD-3, P-BLR, and P-SD represent emissions as limited by PSD minor conditions in the permit. The PTE figures for P-SB1, P-SB2, P-Silos, S-DBE, S-DBW, P-BBL, P-BL, S-MIX, S-PT, and ADC #1 represent emissions after the effect of the integral control devices.

Uncontrolled Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs as CO2e (tons/yr)	HAPs (tons/yr)
Emission Unit									
E-26*	2.98	2.98	2.98	--	--	--	--	--	--
E-52*	2.98	2.98	2.98	--	--	--	--	--	--
P-BINS*	3.89	3.89	3.89	--	--	--	--	--	--
EX-422*	24.1	24.1	24.1	--	--	--	--	--	--
EX-423*	24.1	24.1	24.1	--	--	--	--	--	--
F-31	38.2	38.2	38.2	--	--	--	--	--	--
F-32	38.2	38.2	38.2	--	--	--	--	--	--
F-34	68.8	68.8	68.8	1.93	--	--	--	--	--
F-37	68.8	68.8	68.8	1.93	--	--	--	--	--
T-159*	0.404	0.404	0.404	--	--	--	--	--	--
E-239*	0.09	0.09	0.09	--	--	--	--	--	--
EX-421*	0.33	0.33	0.33	--	--	--	--	--	--
EX-579	8199	8199	8199	--	--	--	534	--	--
EX-579	8199	8199	8199	--	--	--	534	--	--
SCR	0.1	0.3	0.3	0	0.2	3.7	4.4	5288	0.08
EX-104*	1.28	1.28	1.28	--	--	--	--	--	--
EX-631-023*	1.73	1.73	1.73	--	--	--	--	--	--
EX-300-23	0.1	0.5	0.5	--	0.3	5.1	6	7,297	0.114
SEACAP	2790	2790	2790	0.78	3.72	4.03	0.36	--	--
FX-300-35K	0	0.2	0.2	0	0.1	1.8	2.2	2,628	0.04
E-110*	33.4	33.4	33.4	0.21	1.93	29.4	17.5	42,304	0.66
E-7 & E-68	0.13	0.54	0.54	0.04	0.39	5.95	7.08	8,549	0.13
E-602	52.6	52.6	52.6	--	--	--	--	--	--
Total Emissions	19550.22	19551.42	19551.42	4.89	6.64	49.98	1105.54	66065.91	1.03

* Controls are integral to process.

Appendix A: Emissions Calculations
Emission Summary
Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena patton

Limited Potential to Emit

	PM (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	GHGs as CO2e (tons/yr)	HAPs (tons/yr)
Emission Unit									
E-26*	2.98	2.98	2.98	--	--	--	--	--	--
E-52*	2.98	2.98	2.98	--	--	--	--	--	--
P-BINS*	3.89	3.89	3.89	--	--	--	--	--	--
EX-422*	24.1	24.1	24.1	--	--	--	--	--	--
EX-423*	24.1	24.1	24.1	--	--	--	--	--	--
F-31	38.2	38.2	38.2	--	--	--	--	--	--
F-32	38.2	38.2	38.2	--	--	--	--	--	--
F-34	68.8	68.8	68.8	1.93	--	--	--	--	--
F-37	68.8	68.8	68.8	1.93	--	--	--	--	--
T-159*	0.404	0.404	0.404	--	--	--	--	--	--
E-239*	0.09	0.09	0.09	--	--	--	--	--	--
EX-421*	0.33	0.33	0.33	--	--	--	--	--	--
EX-579	8.2	8.2	8.2	--	--	--	534	--	--
EX-579	8.2	8.2	8.2	--	--	--	534	--	--
SCR	0.1	0.3	0.3	0	0.2	3.7	4.4	5288	0.08
EX-104*	1.28	1.28	1.28	--	--	--	--	--	--
EX-631-023*	1.73	1.73	1.73	--	--	--	--	--	--
EX-300-23	0.1	0.5	0.5	--	0.3	5.1	6	7,297	0.114
SEACAP	24.5	14.5	14.5	0.78	3.72	4.03	0.36	--	--
FX-300-35K	0	0.2	0.2	0	0.1	1.8	2.2	2,628	0.04
E-110*	29.0	29.0	29.0	0.21	1.93	29.4	17.5	42,304	0.66
E-7 & E-68	1.35E-01	5.38E-01	5.38E-01	4.25E-02	3.89E-01	5.95	7.08	8,549	0.13
E-602	0.53	0.53	0.53	--	--	--	--	--	--
Total Emissions	346.68	337.81	337.81	4.89	6.64	49.98	1105.54	66065.91	1.03

* Controls are integral to process.

Appendix A: Emission Calculations
Particulate Emissions from the Railcar Loading Process

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena patton

Process	Emission Point ID#	Process Rate (Throughput) (lbs/hr)	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	Control Efficiency (%)	PTE of PM/PM10 After Control (lbs/hr)	PTE of PM/PM10 After Control (tons/yr)	PTE of PM/PM10 Before Control (lbs/hr)	PTE of PM/PM10 Before Control (tons/yr)
Railcar Loading	E-602	40,000	0.01	1,400	99.0%	0.12	0.53	12.0	52.6

Compliance with 326 IAC 6-3-2(e) - Particulate Matter Emissions Limitations

Maximum Allowable Emissions = $E = 4.10 * P^{0.67}$

Where: P = Process Rate in tons per hour = 20
E = Rate of Emissions in pounds per hour

Maximum Allowable Emissions = 30.5 lbs/hr

The baghouse(s) must be in operation at all times that the rail car unloading process is in operation in order to ensure compliance with 326 IAC 6-3-2(e).

Assume all PM emissions equal PM10 emissions.

Methodology

PTE of PM/PM10 After Control (lbs/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 (mins/hr) x 1/7000 (lb/gr)
PTE of PM/PM10 After Control (tons/yr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 (mins/hr) x 1/7000 (lb/gr) x 8760 (hrs/yr) x 1 ton/2000 lbs
PTE of PM/PM10 Before Control (lbs/hr) = PTE of PM/PM10 After Control (lbs/hr) / (1-Control Efficiency%)
PTE of PM/PM10 Before Control (tons/yr) = PTE of PM/PM10 After Control (tons/yr) / (1-Control Efficiency%)

Appendix A: Emission Calculations
Particulate Emissions For the Spray Dryer (P-SD)

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
ïicant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena patton

Process	Process Rate (Throughput) (lbs/hr)	Emission Point ID#	Outlet Grain Loading (grain/ascf)	Air Flow Rate (acfm)	PTE of PM/PM10 (tons/yr)	PTE of PM/PM10 (lbs/hr)
Spray Dryer	73,000	E-110	0.01	81,800	**30.7**	**7.01**

Note: IDEM has determined that the cyclone and baghouse are integral to the spray dryer process. PTE is calculated after the cyclonic baghouse.

Compliance with 326 IAC 6-3-2(e) - Particulate Matter Emissions Limitations

Maximum Allowable Emissions = E = 4.10 * $P^{0.67}$
Where: P= Process Rate in tons per hour = 36.5
E = Rate of Emissions in pounds per hour
Maximum Allowable Emissions = 45.7 lbs/hr

Compliance with 40 CFR 60, Subpart UUU - Particulate Emission Limitations

Particulate emissions are limited to 0.25 gr/dscf
Maximum Allowable Emissions (lbs/hr) = 0.025 gr/dscf x 81,800 acfm x 60 min/hr x 1 lb/7,000 gr = 17.5 lbs/hr

Therefore, the particulate emission limitation in 40 CFR 60, Subpart UUU is the more stringent limit.

Methodology

PTE of PM/PM10 (tons/yr) = Outlet Concentration (grain/ascf) x Air Flow (acfm) x 60 (min/hr) x 8760 (hr/yr) x 1/7000 (lb/grain) x 1/2000 (ton/lb)
PTE of PM/PM10 (lbs/hr) = Outlet Concentration (grain/ascf) x Air Flow (acfm) x 60 (min/hr) x 1/7000 (lb/grain)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena patton

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
10.0	1000	87.6

SCR

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.1	0.3	0.3	0.0	4.4	0.2	3.7

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena patton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.198E-05	5.256E-05	3.285E-03	7.884E-02	1.489E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.190E-05	4.818E-05	6.132E-05	1.664E-05	9.198E-05

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	5,256	0.1	0.1
Summed Potential Emissions in tons/yr	5,256		
CO2e Total in tons/yr	5,288		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
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
Natural Gas Combustion Only
MM BTU/HR <100

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
13.8	1000	120.9

EX-300-23

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.1	0.5	0.5	0.0	6.0	0.3	5.1

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.269E-04	7.253E-05	4.533E-03	1.088E-01	2.055E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.022E-05	6.649E-05	8.462E-05	2.297E-05	1.269E-04

Methodology is the same as page 6.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	7,253	0.1	0.1
Summed Potential Emissions in tons/yr	7,254		
CO2e Total in tons/yr	7,297		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
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
Natural Gas Combustion Only
MM BTU/HR <100

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
5.0	1000	43.8

FX-300-35K

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.0	0.2	0.2	0.0	2.2	0.1	1.8

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.599E-05	2.628E-05	1.643E-03	3.942E-02	7.446E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.095E-05	2.409E-05	3.066E-05	8.322E-06	4.599E-05

Methodology is the same as page 6.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,628	0.1	0.0
Summed Potential Emissions in tons/yr	2,628		
CO2e Total in tons/yr	2,644		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
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
Natural Gas Combustion Only
MM BTU/HR <100

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
80.0	1000	700.8

E-336

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	50 **see below	5.5	84
Potential Emission in tons/yr	0.7	2.7	2.7	0.2	17.5	1.9	29.4

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.358E-04	4.205E-04	2.628E-02	6.307E-01	1.191E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.752E-04	3.854E-04	4.906E-04	1.332E-04	7.358E-04

Methodology is the same as page 6.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	42,048	0.8	0.8
Summed Potential Emissions in tons/yr	42,050		
CO2e Total in tons/yr	42,304		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
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
Natural Gas Combustion Only
MM BTU/HR <100

Source Name: Criterion Catalysts & Technologies, L.P.
Source Location: 1800 East US 12, Michigan City, IN 46360
Operation Permit Number: T091-31600-00053
Signficant Permit Modification No: 091-33571-00053
Permit Reviewer: Deena Patton

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
16.5	1020	141.6

Unit	HP	MMBtu/hr
E-7	150	6.28
E-63	250	10.21

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	1.35E-01	5.38E-01	5.38E-01	4.25E-02	7.1	3.89E-01	5.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.487E-04	8.497E-05	5.311E-03	1.275E-01	2.408E-04	**1.332E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	3.541E-05	7.789E-05	9.913E-05	2.691E-05	1.487E-04	**3.880E-04**

Total HAPs	**1.336E-01**
Worst HAP	**1.275E-01**

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Greenhouse Gas Calculations

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	8,497	0.2	0.2
Summed Potential Emissions in tons/yr	8,498		
CO2e Total in tons/yr	8,549		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
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).

updated 2/13

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: Jesse Trent
Criterion Catalysts and Technologies, L.P
1800 E US 12
Michigan City, IN 46360

DATE: December 10, 2013

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

SUBJECT: Final Decision
Title V - Significant Permit Modification
091 - 33571 - 00053

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:
Geno Tolari, Plant Mgr
David Jordan Environmental Resources Management (ERM)
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.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

December 10, 2013

TO: Laporte County Public Library-Michigan City Branch

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: **Criterion Catalysts and Technologies, L.P**
Permit Number: **091 - 33571 - 00053**

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	LPOGOST 12/10/2013 Criterion Catalysts and Technologies, L.P. 091 - 33571 - 00053 /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		Jesse Trent Criterion Catalysts and Technologies, L.P. 1800 E US 12 Michigan City IN 46360 (Source CAATS) Via confirmed delivery									
2		Geno Tolari Plant Mgr Criterion Catalysts and Technologies, L.P. 1800 E US 12 Michigan City IN 46360 *(RO CAATS)*									
3		Laporte County Public Library-Michigan City Branch 100 East 4th Street Michigan City IN 46360-3393 *(Library)*									
4		LaPorte County Commissioners 555 Michigan Avenue # 202 LaPorte IN 46350 *(Local Official)*									
5		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 *(Affected Party)*									
6		David Jordan Environmental Resources Management (ERM) 11350 North Meridian, Suite 320 Carmel IN 46032 *(Consultant)*									
7		Michigan City-City Council and Mayors Office 100 E. Michigan Blvd. Michigan City IN 46360 *(Local Official)*									
8		LaPorte County Health Department County Complex, 4th Floor, 809 State St. LaPorte IN 46350-3329 *(Health Department)*									
9		Mr. Dick Paulen Barnes & Thornburg 121 W Franklin Street Elkhart IN 46216 *(Affected Party)*									
10											
11											
12											
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