



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: December 13, 2007
RE: Criterion Catalyst / 091-21619-00053
FROM: Matthew Stuckey, Deputy 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 13-15-5-3, this permit 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 13-15-6-1(b) or IC 13-15-6-1(a) 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 of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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 an initial Title V operating permit, permit renewal, 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 impracticable 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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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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T091-21619-00053	
Original signed by: Matthew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: December 13, 2007 Expiration Date: December 13, 2012

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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(15)] [326 IAC 2-7-1(22)]

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

Source Address:	1800 East U.S. 12, Michigan City, Indiana 46360
Mailing 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:	Nonattainment for 8-hour ozone standard; Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset 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) One (1) storage bin, identified as P-SB1 (E-26), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack V.
- (b) One (1) storage bin, identified as P-SB2 (E-52), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack K.
- (c) Ten (10) silos collectively identified as P-SILOS, each segment is equipped with fabric filter for a total of 17 fabric filters, individually identified as:
 - (1) silo 1 (segments E-195, E-196, E-197, E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;
 - (2) silo 2 (segments E-216, E-217), constructed in 1987, exhausting to stacks AA7, AA8;
 - (3) silo 3 (segment E-199), constructed in 1987, exhausting to stack AA5;
 - (4) silo 4 (segment E-200), constructed in 1987, exhausting to stack AA6;
 - (5) silo 5 (segments E-204, EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;
 - (6) silo 6 (segment E-201), constructed in 1987, exhausting to stack AA10;
 - (7) silo 7 (segment EA-130-009), constructed in 1978, exhausting to stack FF;
 - (8) silo 8 (segment E-202), constructed in 1987, exhausting to stack AA11;

- (9) silo 9 (segments E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and
 - (10) silo 10 (segments E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.
- (d) Two (2) day bins, identified as S-DBE (EX-422) and S-DBW (EX-423), each constructed in 1975, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.
 - (e) 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) 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.
 - (g) One (1) bulk bag loading processes, identified as P-BBL (T-159), constructed in 1983, with two (2) baghouses (E-160, E-176) for particulate control, and exhausting to stack BB.
 - (h) One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) one rail car loading system, constructed in 1983, and one sealand container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.
 - (i) Two (2) mixers, identified as S-MIX (EX-421), constructed in 1975, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.
 - (j) Two (2) calciners, identified as S-C1 (EX-579), constructed in 1965, exhausting to stacks P4, H1 and H2 and S-C2 (EX-579), constructed in 1975, and exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. Nitrogen oxide emissions from S-C1 and S-C2 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.
 - (k) One (1) pneumatic transfer process from the fines grinder system, identified as S-PT (EX-104) constructed in 1975, equipped with one (1) baghouse for particulate control, and exhausting to stack J.
 - (l) Bag loadout and other particulate matter processes, constructed in 1975, and screener and fines grinder feed system, constructed in 2005, collectively identified as ADC #1 (S-DC1 (EX-631-023)), equipped with one (1) baghouse, and exhausting to stack F.
 - (m) One (1) natural gas-fired dryer, identified as S-D1 (EX-300-23), constructed in 1965, rated at 13.8 MMBtu/hr, and exhausting to stack P1.
 - (n) One (1) natural gas-fired high temperature dryer, identified as SEACAP dryer (EX-496), constructed in 1996 and modified in 2000, rated at 1.38 MMBtu/hr, using one (1) baghouse for particulate control, and exhausting to stack P3.
 - (o) One (1) natural gas-fired low temperature dryer, identified as SD-3 (FX-300-35K), constructed in 1965 and modified in 2000, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.
 - (p) One (1) natural gas-fired spray dryer, identified as P-SD (E-110), constructed in 1956 and modified in 1995 and 2006, 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.

- (q) One (1) natural gas-fired boiler, identified as BLR 2 (E-68), constructed in 1961, rated at 15.1 MMBtu/hr, and exhausting to Stack N.
- (r) One (1) bulk loading process containing one rail car loading system identified as P-BLR (E-239), constructed in 2006, exhausting to stack GG and equipped with one (1) baghouse (E-190) for particulate control.

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(15)]

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

- (a) 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) 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]

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, T091-21619-00053, 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.
- (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]

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. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall

state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "responsible official" is defined at 326 IAC 2-7-1(34)

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

- (a) If required by specific conditions in Section D of this permit, the Permittee shall maintain and implement Preventative Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-2. At minimum, the PMPs shall include:
- (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.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the 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;

IDEM, OAQ

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

and

Northwest Regional Office

8315 Virginia Street, Suite 1
Merrillville, Indiana 46410
Telephone Number: (219) 757-0265, or (888) 209-8892
Facsimile Number: 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.
-

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T091-21619-00053 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.

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

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

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

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

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

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this

permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(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.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][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) Any application requesting an amendment or modification of this permit shall be submitted to:

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

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

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

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

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, 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), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

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

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

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

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2 and/or 326 IAC 2-3.

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

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

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

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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

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

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

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

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

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

-
- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40

CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.12 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.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (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.14 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.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6(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 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 the certification by the responsible official as defined by 326 IAC 2-7-1(34).

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

C.18 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. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit or at a source with Plant-wide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
 - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption

of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]
[326 IAC 2-3]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ :
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and
- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
- (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
- (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

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

Reports required in this part shall be submitted to:

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

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (a) One (1) storage bin, identified as P-SB1 (E-26), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack V.
- (b) One (1) storage bin, identified as P-SB2 (E-52), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack K.
- (c) Ten (10) silos collectively identified as P-SILOS, each segment is equipped with fabric filter for a total of 17 fabric filters, individually identified as:
 - (1) silo 1 (segments E-195, E-196, E-197, E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;
 - (2) silo 2 (segments E-216, E-217), constructed in 1987, exhausting to stacks AA7, AA8;
 - (3) silo 3 (segment E-199), constructed in 1987, exhausting to stack AA5;
 - (4) silo 4 (segment E-200), constructed in 1987, exhausting to stack AA6;
 - (5) silo 5 (segments E-204, EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;
 - (6) silo 6 (segment E-201), constructed in 1987, exhausting to stack AA10;
 - (7) silo 7 (segment EA-130-009), constructed in 1978, exhausting to stack FF;
 - (8) silo 8 (segment E-202), constructed in 1987, exhausting to stack AA11;
 - (9) silo 9 (segments E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and
 - (10) silo 10 (segments E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.
- (d) Two (2) day bins, identified as S-DBE (EX-422) and S-DBW (EX-423), each constructed in 1975, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.
- (e) 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) 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.
- (g) One (1) bulk bag loading processes, identified as P-BBL (T-159), constructed in 1983, with two (2) baghouses (E-160, E-176) for particulate control, and exhausting to stack BB.
- (h) One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) one rail car loading system, constructed in 1983, and one sealand container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.
- (i) Two (2) mixers, identified as S-MIX (EX-421), constructed in 1975, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.
- (j) Two (2) calciners, identified as S-C1 (EX-579), constructed in 1965, exhausting to stacks P4, H1

SECTION D.1

FACILITY OPERATION CONDITIONS

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

and H2 and S-C2 (EX-579), constructed in 1975, and exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. Nitrogen oxide emissions from S-C1 and S-C2 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

- (k) One (1) pneumatic transfer process from the fines grinder system, identified as S-PT (EX-104) constructed in 1975, equipped with one (1) baghouse for particulate control, and exhausting to stack J.
- (l) Bag loadout and other particulate matter processes, constructed in 1975, and screener and fines grinder feed system, constructed in 2005, collectively identified as ADC #1 (S-DC1 (EX-631-023)), equipped with one (1) baghouse, and exhausting to stack F.
- (m) One (1) natural gas-fired dryer, identified as S-D1 (EX-300-23), constructed in 1965, rated at 13.8 MMBtu/hr, and exhausting to stack P1.
- (n) One (1) natural gas-fired high temperature dryer, identified as SEACAP dryer (EX-496), constructed in 1996 and modified in 2000, rated at 1.38 MMBtu/hr, using one (1) baghouse for particulate control, and exhausting to stack P3.
- (o) One (1) natural gas-fired low temperature dryer, identified as SD-3 (EX-300-35K), constructed in 1965 and modified in 2000, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.
- (r) One (1) bulk loading process containing one rail car loading system identified as P-BLR (E-239), constructed in 2006, exhausting to stack GG and equipped with one (1) baghouse (E-190) for particulate control.

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

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

D.1.1 PSD Minor Limit [326 IAC 2-2]

- (a) The emissions of PM from the bulk bag loading process (P-BBL) and the bulk loading process (P-BL) shall each be limited to less than 2.85 pounds per hour. Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable to the 1983 modification.
- (b) As revised by this Title V Renewal permit:
 - (1) The emissions of PM from each of the fourteen (14) silo segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, E-201, E-202, E-193, E203, and E-194) shall be limited to less than 0.407 pounds per hour.
 - (2) The emissions of PM10 from each of the fourteen (14) silo segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, E-201, E-202, E-193, E-203, and E-194) shall be limited to less than 0.24 pounds per hour.
- (c) Pursuant to Minor Source Modification 091-11692-00053, issued March 7, 2000, and as revised by this Title V Renewal permit:

Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable to the 1987 modification.

- (1) The emissions of PM from the SEACAP dryer shall be limited to less than 5.6 pounds per hour.
- (2) The emissions of PM10 from the SEACAP dryer shall be limited to less than 3.3 pounds per hour.
- (3) The emissions of PM and PM10 from the SD-3 dryer shall be limited to less than 0.1 pounds per hour.

Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable to the 2000 modification under MSM 091-11692-00053.

- (d) Pursuant to Significant Source Modification 091-21226-00053, issued on January 20, 2006, the PM and PM10 emissions from the bulk loading process identified as P-BLR shall be limited to 0.12 pounds per hour.

Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable to the 2006 modification under SSM 091-21226-00053.

D.1.2 Particulate Emissions [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	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)	1.90
S-MIX (EX-421)	3.34
S-C1 (EX-579)	3.63
S-C2 (EX-579)	3.63
S-PT (EX-104)	6.48
ADC#1 (EX-631-023)	6.95
S-D1 (EX-300-23)	2.73
SEACAP dryer (EX-496)	3.40
SD-3 (FX-300-35K)	2.99
P-BLR (E-239)	1.78

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for S-C1, S-C2, P-SB1, P-SB2, SEACAP, P-BBL, P-BL, and P-BLR and their control devices.

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) 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);
 - (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);
 - (11) One (1) high temperature dryer identified as SEACAP dryer (EX-529); and
 - (12) One (1) bulk loading process containing one rail car loading system, identified as P-BLR (E-239).
- (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 at all times that the silos 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 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

The Permittee shall perform PM and PM10 testing for the spray dryer identified SEACAP dryer within one hundred eighty days (180) after issuance of this permit, or within sixty (60) days of the resumption of operations at this emission unit, whichever is later, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.1.6 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the exhaust from the stacks for S-C1 (DCC baghouse), S-C2 (DCC baghouse), P-SB1 (stack V), P-SB2 (stack K), SEACAP (stack P3), P-BBL (stack BB), P-BL (stack CC), and P-BLR (stack GG) 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.7 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, SEACAP, 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 in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 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.

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

D.1.9 Record Keeping Requirements

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

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (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.

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

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

D.2.1 Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the particulate matter emissions from BLR2 shall be limited to 0.8 lbs per MMBtu.

Pursuant to 326 IAC 6-2-3, boilers existing and in operation before September 21, 1983 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

Where

C = max ground level concentration (= 50 Φ m/m³)

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

N = number of stacks = 1

a = plume rise factor = 0.67

h = stack height (ft)

The more stringent PM emission limit for this boiler is 0.8 lbs/MMBtu

SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (p) One (1) natural gas-fired spray dryer, identified as P-SD (E-110), constructed in 1956 and modified in 1995 and 2006, 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 facility description box is descriptive information and does not constitute enforceable conditions.)

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

D.3.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to Significant Source Modification 091-21226-00053, issued on January 20, 2006, the PM and PM10 emissions from the spray dryer identified as P-SD (E-110) shall be limited to 6.62 pounds per hour, each.

Compliance with these limits renders the requirements of 326 IAC 2-2 (PSD) not applicable to the 2006 modification under SSM 091-21226-00053.

D.3.2 Monitoring Requirements [326 IAC 12]

- (a) When operating under Alternative Operating Scenario 1, the Permittee shall monitor emissions pursuant to 40 CFR 60.734(a).
- (b) When operating under Alternative Operating Scenario 2, the Permittee shall monitor emissions pursuant to 40 CFR 60.734(d).

Compliance Determination Requirements

D.3.3 Particulate Controls

In order to comply with Condition D.3.1, the Permittee shall control particulate emissions from the spray dryer P-SD 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 P-SD 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 P-SD dryer is in operation.

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

D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

In order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM and PM10 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.

The Permittee is required to conduct testing under both Alternative Operating Scenario 1 and Alternative Operating Scenario 2. The PM and PM10 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 prior to December 2011. 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 (using the wet scrubber to control particulate emissions): The Permittee shall conduct testing within sixty (60) days of beginning operations using this operating scenario. This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration.

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

D.3.5 Record Keeping Requirements [326 IAC 12]

- (a) In order to demonstrate compliance with Condition D.3.3, the Permittee shall keep a daily record of the operating scenario used to control particulate emissions from the dryer.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

D.3.6 General Provisions Relating to NSPS [326 IAC 12-1-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR Part 60, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1, for the one (1) spray dryer identified as P-SD (E-110) as specified in Appendix A of 40 CFR Part 60, Subpart UUU in accordance with schedule in 40 CFR Part 60, Subpart UUU.

D.3.7 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 one (1) spray dryer identified as P-SD (E-110) shall comply with the following provisions:

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

§ 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.

(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.

(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.

SECTION D.4

FACILITY OPERATION CONDITIONS

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

Insignificant Activities

- (a) Degreasing not exceeding 145 gallons per 12 months. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) 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 facility description box is descriptive information and does not constitute enforceable conditions.)

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

D.4.1 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) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered 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.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5 (a)]

- (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 or 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.

D.4.3 Particulate Emissions [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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Criterion Catalysts and Technologies, L.P.
Source Location: 1800 East U.S. 12, Michigan City, Indiana 46360
Mailing Address: 1800 East U.S. 12, Michigan City, Indiana 46360
Permit Renewal No.: T091-21619-00053

**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 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 Location: 1800 East U.S. 12, Michigan City, Indiana 46360
Mailing Address: 1800 East U.S. 12, Michigan City, Indiana 46360
Permit Renewal No.: T091-21619-00053

This form consists of 2 pages

Page 1 of 2

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)
<input checked="" type="checkbox"/> 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
<input checked="" type="checkbox"/> 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: _____

A certification is not required for this report.

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

**PART 70 OPERATING PERMIT
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Criterion Catalysts and Technologies, L.P.
 Source Location: 1800 East U.S. 12, Michigan City, Indiana 46360
 Mailing Address: 1800 East U.S. 12, Michigan City, Indiana 46360
 Permit Renewal No.: T091-21619-00053

Months: _____ **to** _____ **Year:** _____

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. 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".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Criterion Catalysts and Technologies, L.P.
Source Location:	1800 East U.S. 12, Michigan City, Indiana 46360
County:	LaPorte
SIC Code:	2819
Operation Permit No.:	T091-21619-00053
Permit Reviewer:	ERG/ST

On October 14, 2007, the Office of Air Quality (OAQ) had a notice published in the News Dispatch, Michigan City, Indiana, stating that Criterion Catalysts and Technologies, L.P. had applied for a Part 70 Operating Permit Renewal to operate a stationary alumina powder and specialty chemical production plant with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 13, 2007, Criterion Catalysts and Technologies, L.P. submitted comments on the proposed Part 70 Operating Permit renewal. The summary of the comments is as follows. New language is shown in bold and deleted language is shown in strikethrough. The Table of Contents has been updated as necessary.

Comment 1: In Condition A.2 and in Section D.1, the equipment ID numbers should be changed to reflect the revised numbering system currently used at Criterion. The following changes should be made to the equipment ID numbers as shown:

- (a) Item (a), P-SB1 (T-32), should be changed to P-SB1 **(E-26)**;
- (b) Item (b), P-SB2 (T-87), should be changed to P-SB2 **(E-52)**;
- (c) Item (d), S-DBE (EX-120-005A) and S-DBW (EX-120-005B), should be changed to S-DBE **(EX-422)** and S-DBW **(EX-423)**;
- (d) Item (e), P-SAR1 (T-33) and P-SAR2 (T-128), should be changed to P-SAR1 **(F-31)** and P-SAR2 **(F-32)**;
- (e) Item (f), P-ASR1 (T-30) and P-ASR2 (T-129), should be changed to P-ASR1 **(F-34)** and P-ASR2 **(F-037)**;
- (f) Item (g), P-BBL (not identified), should be changed to P-BBL **(T-159)**;
- (g) Item (i), S-MIX (EX-120-007A and EX-120-007B), should be changed to S-MIX **(EX-421)**;

- (h) Item (j), S-C1 (EX-300-25) and S-C2 (EX-130-005) should be changed to S-C1 and S-C2 – combined **(EX-579)**;
- (i) Item (n), SEACAP dryer (EX-529), should be changed to SEACAP dryer **(EX-496)**;
- (j) Item (o), SD-3 (EX-300-35), should be changed to SD-3 **(FX-300-35K)**;
- (k) Item (p), P-SD (E-110), baghouses (not identified), burner (not identified, and scrubber (not identified), should be changed to P-SD **(T-110)**, baghouses **(E-357A, E-357B, E-357C)**, burner **(E-336)**, scrubber **(T-107)**; and
- (l) Item (r), P-BLR (not identified) and baghouse (not identified), should be changed to P-BLR **(E-239)** and baghouse **(E-190)**.

IDEM Response to Comment 1: The permit has been changed as follows:

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

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) storage bin, identified as P-SB1 (~~T-32~~) **(E-26)**, constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack V.
- (b) One (1) storage bin, identified as P-SB2 (~~T-87~~) **(E-52)**, constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack K.
- ...
- (d) Two (2) day bins, identified as S-DBE (~~EX-120-005A~~) **(EX-422)** and S-DBW (~~EX-120-005B~~) **(EX-423)**, each constructed in 1975, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.
- (e) Two (2) sodium aluminate reactors, identified as P-SAR1 (~~T-33~~) **(F-31)** constructed in 1968, and P-SAR2 (~~T-128~~) **(F-32)** constructed in 1972, and exhausting to stacks R and S, respectively.
- (f) Two (2) aluminum sulfate reactors, identified as P-ASR1 (~~T-30~~) **(F-34)** constructed in 1968, and P-ASR2 (~~T-129~~) **(F-37)** constructed in 1972, and exhausting to stacks T and U, respectively.
- (g) One (1) bulk bag loading processes, identified as P-BBL **(T-159)**, constructed in 1983, with two (2) baghouses (E-160, E-176) for particulate control, and exhausting to stack BB.
- (h) One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) one rail car loading system, constructed in 1983, and one sealand container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.
- (i) Two (2) mixers, identified as S-MIX (~~EX-120-007A and EX-120-007B~~) **(EX-421)**, constructed in 1975, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.
- (j) Two (2) calciners, identified as S-C1 (~~EX-300-25~~) **(EX-579)**, constructed in 1965, exhausting to stacks P4, H1 and H2 and S-C2 (~~EX-130-005~~) **(EX-579)**, constructed in 1975, and exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. Nitrogen oxide emissions from S-

C1 and S-C2 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.

- (k) One (1) pneumatic transfer process from the fines grinder system, identified as S-PT (EX-104) constructed in 1975, equipped with one (1) baghouse for particulate control, and exhausting to stack J.
- (l) Bag loadout and other particulate matter processes, constructed in 1975, and screener and fines grinder feed system, constructed in 2005, collectively identified as ADC #1 (S-DC1 (EX-631-023)), equipped with one (1) baghouse, and exhausting to stack F.
- (m) One (1) natural gas-fired dryer, identified as S-D1 (EX-300-23), constructed in 1965, rated at 13.8 MMBtu/hr, and exhausting to stack P1.
- (n) One (1) natural gas-fired high temperature dryer, identified as SEACAP dryer (~~EX-529~~) (**EX-496**), constructed in 1996 and modified in 2000, rated at 1.38 MMBtu/hr, using one (1) baghouse for particulate control, and exhausting to stack P3.
- (o) One (1) natural gas-fired low temperature dryer, identified as SD-3 (~~EX-300-35~~) (**FX-300-35K**), constructed in 1965 and modified in 2000, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.
- (p) One (1) natural gas-fired spray dryer, identified as P-SD (E-110), constructed in 1956 and modified in 1995 and 2006, 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.
- (q) One (1) natural gas-fired boiler, identified as BLR 2 (E-68), constructed in 1961, rated at 15.1 MMBtu/hr, and exhausting to Stack N.
- (r) One (1) bulk loading process containing one rail car loading system identified as P-BLR (**E-239**), constructed in 2006, exhausting to stack GG and equipped with one (1) baghouse (**E-190**) for particulate control.

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SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (a) One (1) storage bin, identified as P-SB1 (~~T-32~~) (**E-26**), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack V.
- (b) One (1) storage bin, identified as P-SB2 (~~T-87~~) (**E-52**), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack K.
- (c) Ten (10) silos collectively identified as P-SILOS, each segment is equipped with fabric filter for a total of 17 fabric filters, individually identified as:
 - (1) silo 1 (segments E-195, E-196, E-197, E-198), constructed in 1987, exhausting to stacks

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- AA1, AA2, AA3, and AA4, respectively;
- (2) silo 2 (segments E-216, E-217), constructed in 1987, exhausting to stacks AA7, AA8;
 - (3) silo 3 (segment E-199), constructed in 1987, exhausting to stack AA5;
 - (4) silo 4 (segment E-200), constructed in 1987, exhausting to stack AA6;
 - (5) silo 5 (segments E-204, EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;
 - (6) silo 6 (segment E-201), constructed in 1987, exhausting to stack AA10;
 - (7) silo 7 (segment EA-130-009), constructed in 1978, exhausting to stack FF;
 - (8) silo 8 (segment E-202), constructed in 1987, exhausting to stack AA11;
 - (9) silo 9 (segments E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and
 - (10) silo 10 (segments E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.
- (d) Two (2) day bins, identified as S-DBE (~~EX-120-005A~~) (**EX-422**) and S-DBW (~~EX-120-005B~~) (**EX-423**), each constructed in 1975, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.
 - (e) Two (2) sodium aluminate reactors, identified as P-SAR1 (~~T-33~~) (**F-31**) constructed in 1968, and P-SAR2 (~~T-428~~) (**F-32**) constructed in 1972, and exhausting to stacks R and S, respectively.
 - (f) Two (2) aluminum sulfate reactors, identified as P-ASR1 (~~T-30~~) (**F-34**) constructed in 1968, and P-ASR2 (~~T-429~~) (**F-37**) constructed in 1972, and exhausting to stacks T and U, respectively.
 - (g) One (1) bulk bag loading processes, identified as P-BBL (**T-159**), constructed in 1983, with two (2) baghouses (E-160, E-176) for particulate control, and exhausting to stack BB.
 - (h) One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) one rail car loading system, constructed in 1983, and one sealand container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.
 - (i) Two (2) mixers, identified as S-MIX (~~EX-120-007A and EX-120-007B~~) (**EX-421**), constructed in 1975, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.
 - (j) Two (2) calciners, identified as S-C1 (~~EX-300-25~~) (**EX-579**), constructed in 1965, exhausting to stacks P4, H1 and H2 and S-C2 (~~EX-130-005~~) (**EX-579**), constructed in 1975, and exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. Nitrogen oxide emissions from S-C1 and S-C2 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.
 - (k) One (1) pneumatic transfer process from the fines grinder system, identified as S-PT (EX-104) constructed in 1975, equipped with one (1) baghouse for particulate control, and exhausting to stack J.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:	
(l)	Bag loadout and other particulate matter processes, constructed in 1975, and screener and fines grinder feed system, constructed in 2005, collectively identified as ADC #1 (S-DC1 (EX-631-023)), equipped with one (1) baghouse, and exhausting to stack F.
(m)	One (1) natural gas-fired dryer, identified as S-D1 (EX-300-23), constructed in 1965, rated at 13.8 MMBtu/hr, and exhausting to stack P1.
(n)	One (1) natural gas-fired high temperature dryer, identified as SEACAP dryer (EX-529) (EX-496), constructed in 1996 and modified in 2000, rated at 1.38 MMBtu/hr, using one (1) baghouse for particulate control, and exhausting to stack P3.
(o)	One (1) natural gas-fired low temperature dryer, identified as SD-3 (EX-300-35) (FX-300-35K), constructed in 1965 and modified in 2000, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.
(r)	One (1) bulk loading process containing one rail car loading system identified as P-BLR (E-239), constructed in 2006, exhausting to stack GG and equipped with one (1) baghouse (E-190) for particulate control.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)	

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D.1.2 Particulate Emissions [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 (T-32) (E-26)	1.78
P-SB2 (T-87) (E-52)	1.78
P-SILOS	1.97
S-DBE (EX-120-005A) (EX-422)	3.03
S-DBW (EX-120-005B) (EX-423)	3.03
P-SAR1 (T-33) (F-31)	1.89
P-SAR2 (T-128) (F-32)	1.89
P-ASR1 (T-30) (F-34)	1.87
P-ASR2 (T-129) (F-37)	1.87
P-BBL (E-160) (T-159)	5.30
P-BL (E-190)	1.90
S-MIX (EX-120-007A/7B) (EX-421)	3.34
S-C1 (EX-300-25) (EX-579)	3.63
S-C2 (EX-130-005) (EX-579)	3.63
S-PT (EX-104)	6.48
ADC#1 (EX-631-023)	6.95
S-D1 (EX-300-23)	2.73

Unit ID	Allowable Emission Rate (lb/ton throughput)
SEACAP dryer (EX-496)	3.40
SD-3 (FX-300-35K)	2.99
P-BLR (E-239)	1.78

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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 (~~T-32~~) **(E-26)**;
 - (2) One (1) storage bin identified as P-SB2 (~~T-87~~) **(E-52)**;
 - (3) One (1) day bin identified as S-DBE (~~EX-120-005A~~) **(EX-422)**;
 - (4) One (1) day bin identified as S-DBW (~~EX-120-005B~~) **(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) and one (1) sealand container loading system identified as P-BL (E-190);
 - (7) Two (2) mixers identified as S-MIX (~~EX-120-007A and EX-120-007B~~) **(EX-421)**;
 - (8) Two (2) calciners identified as S-C1 (~~EX-300-25~~) and SC-2 (~~EX-130-005~~) **(EX-579)**;
 - (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);
 - (11) One (1) high temperature dryer identified as SEACAP dryer **(EX-529)**; and
 - (12) One (1) bulk loading process containing one rail car loading system, identified as P-BLR **(E-239)**.

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SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (p) One (1) natural gas-fired spray dryer, identified as P-SD (E-110), constructed in 1956 and modified in 1995 and 2006, 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.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Criterion Catalysts and Technologies, L.P.
Source Location:	1800 East U.S. 12, Michigan City, Indiana 46360
County:	LaPorte
SIC Code:	2819
Operation Permit No.:	T091-6789-00053
Operation Permit Issuance Date:	May 1, 2001
Permit Renewal No.:	T091-21619-00053
Permit Reviewer:	ERG/ST

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from Criterion Catalysts and Technologies, L.P. relating to the operation of a stationary alumina powder and specialty chemical production plant.

This Part 70 Permit Renewal contains provisions intended to satisfy the requirements of the construction permit rules.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) storage bin, identified as P-SB1 (T-32), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack V.
- (b) One (1) storage bin, identified as P-SB2 (T-87), constructed in 1951, with one (1) baghouse for particulate control, and exhausting to stack K.
- (c) Ten (10) silos collectively identified as P-SILOS, each segment is equipped with fabric filter for a total of 17 fabric filters, individually identified as:
 - (1) silo 1 (segments E-195, E-196, E-197, E-198), constructed in 1987, exhausting to stacks AA1, AA2, AA3, and AA4, respectively;
 - (2) silo 2 (segments E-216, E-217), constructed in 1987, exhausting to stacks AA7, AA8;
 - (3) silo 3 (segment E-199), constructed in 1987, exhausting to stack AA5;
 - (4) silo 4 (segment E-200), constructed in 1987, exhausting to stack AA6;
 - (5) silo 5 (segments E-204, EA-130-012), constructed in 1987 and 1978, respectively, exhausting to stacks AA9 and C, respectively;
 - (6) silo 6 (segment E-201), constructed in 1987, exhausting to stack AA10;
 - (7) silo 7 (segment EA-130-009), constructed in 1978, exhausting to stack FF;

- (8) silo 8 (segment E-202), constructed in 1987, exhausting to stack AA11;
 - (9) silo 9 (segments E-30, E-193), constructed in 1956 and 1987, respectively, exhausting to stacks AA13 and D, respectively; and
 - (10) silo 10 (segments E203, E-194), constructed in 1987, exhausting to stacks AA12 and AA14, respectively.
- (d) Two (2) day bins, identified as S-DBE (EX-120-005A) and S-DBW (EX-120-005B), each constructed in 1975, each with one (1) baghouse for particulate control, and exhausting to stacks Q1 and Q2, respectively.
 - (e) Two (2) sodium aluminate reactors, identified as P-SAR1 (T-33) constructed in 1968, and P-SAR2 (T-128) constructed in 1972, and exhausting to stacks R and S, respectively.
 - (f) Two (2) aluminum sulfate reactors, identified as P-ASR1 (T-30) constructed in 1968, and P-ASR2 (T-129) constructed in 1972, and exhausting to stacks T and U, respectively.
 - (g) One (1) bulk bag loading process, identified as P-BBL, constructed in 1983, with two (2) baghouses (E-160, E-176) for particulate control, and exhausting to stack BB.
 - (h) One (1) bulk loading process, identified as P-BL (E-190), consisting of one (1) one rail car loading system, constructed in 1983, and one sealand container loading system, constructed in 1992, both equipped with one (1) baghouse for particulate control, and exhausting to stack CC.
 - (i) Two (2) mixers, identified as S-MIX (EX-120-007A and EX-120-007B), constructed in 1975, both equipped with one (1) baghouse for particulate control, and exhausting to stack Y.
 - (j) Two (2) calciners, identified as S-C1 (EX-300-25), constructed in 1965, exhausting to stacks P4, H1 and H2 and S-C2 (EX-130-005), constructed in 1975, and exhausting to stacks P4, O1, O2 and O3, both equipped with one (1) baghouse (the DCC baghouse) for particulate control. Nitrogen oxide emissions from S-C1 and S-C2 are controlled voluntarily by a natural gas fired selective catalytic reduction (SCR) system rated at less than 10 MMBtu/hr.
 - (k) One (1) pneumatic transfer process from the fines grinder system, identified as S-PT (EX-104) constructed in 1975, equipped with one (1) baghouse for particulate control, and exhausting to stack J.
 - (l) Bag loadout and other particulate matter processes, constructed in 1975, and screener and fines grinder feed system, constructed in 2005, collectively identified as ADC #1 (S-DC1 (EX-631-023)), equipped with one (1) baghouse, and exhausting to stack F.
 - (m) One (1) natural gas-fired dryer, identified as S-D1 (EX-300-23), constructed in 1965, rated at 13.8 MMBtu/hr, and exhausting to stack P1.
 - (n) One (1) natural gas-fired high temperature dryer, identified as SEACAP dryer (EX-529), constructed in 1996 and modified in 2000, rated at 1.38 MMBtu/hr, using one (1) baghouse for particulate control, and exhausting to stack P3.
 - (o) One (1) natural gas-fired low temperature dryer, identified as SD-3 (EX-300-35), constructed in 1965 and modified in 2000, rated at 5 MMBtu/hr, using no controls, and exhausting to stack P2.
 - (p) One (1) natural gas-fired spray dryer, identified as P-SD (E-110), constructed in 1956 and modified in 1995 and 2006, with a burner rated at 80MMBtu/hr, and using a cyclone for product recovery (integral to the process), and exhausting to the baghouses. Particulate

emissions are controlled using two operating scenarios. In Alternative Operating Scenario 1, particulate is controlled using three (3) baghouses in parallel (integral to the process). In Alternative Operating Scenario 2, particulate is controlled using three baghouses in parallel (integral to the process) and a wet scrubber. In both operating scenarios, emissions exhaust through stack B. This is an affected unit under 40 CFR 60, Subpart UUU.

- (q) One (1) natural gas-fired boiler, identified as BLR 2 (E-68), constructed in 1961, rated at 15.1 MMBtu/hr, and exhausting to Stack N.
- (r) One (1) bulk loading process containing one rail car loading system identified as P-BLR, constructed in 2006, exhausting to stack GG and equipped with one (1) baghouse for particulate control.

* Emission unit P-SD is required under the federal rule (40 CFR 60, Subpart UUU) to comply with the mass emission standard using either a dry control device (baghouses) or a wet scrubber. In the primary operating scenario, the Permittee will comply with the mass emission standard using a dry control device (the three (3) baghouses) and monitor emissions with a continuous opacity monitor (COM). As an Alternative Operating Scenario, the Permittee will comply with the mass emission standard for P-SD by controlling emissions with the (3) baghouses and the wet scrubber. Compliance with the alternative operating scenario will be accomplished by operating 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 catalyst dryer identified as DCC was removed in September 2007.

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

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) 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) Fugitive 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]
- (c) Natural gas-fired combustion sources with heat input equal or less than 10 MMBtu/hr.
- (d) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal or less than six million Btu per hour.
- (e) Combustion source flame safety purging on startup.
- (f) Petroleum fuel dispensing.
- (g) Forced and induced draft cooling towers.
- (h) Routine purging of gas lines and vessels not associated with production.
- (i) Flue gas conditioning and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.

- (j) Blowdown for certain equipment.
- (k) On-site fire and emergency response training.
- (l) Emergency natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.
- (m) Purge double block and bleed valves.
- (n) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (o) Specialty Plant solution make-up tank, metals dissolver, vacuum system, weight tank, impregnators, and vacuum blower exhaust (E-305).

Existing Approvals

The source has been operating under Part 70 operating permit T091-6789-000053, issued on May 1, 2001, and the following approvals:

- (a) 1st Administrative Amendment 091-14560-00053, issued on July 26, 2001;
- (b) 2nd Administrative Amendment 091-14707-00053, issued on August 24, 2001;
- (c) 3rd Administrative Amendment 091-15004-00053, issued on November 26, 2001;
- (d) 1st Significant Permit Modification 091-15164-00053, issued on March 12, 2002;
- (e) 4th Administrative Amendment 091-20884-00053, issued on March 18, 2005;
- (f) 5th Administrative Amendment 091-21117-00053, issued on June 23, 2005;
- (g) Significant Source Modification 091-21226-00053, issued on January 20, 2006; and
- (h) Significant Permit Modification 091-21489-00053, issued on June 30, 2006.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

- (a) PSD Minor Limit
In 1983, the source added a bulk bag loading process (P-BBL) and a bulk loading process (P-BL). A PSD minor limit has been added to the permit to make this modification minor under PSD and to add federally-enforceable limits for particulate emissions. (See discussion under the *State Rule Applicability – Entire Source - 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)* section of this TSD.)
- (b) PSD Minor Limit
In 1987, the source added fourteen (14) silos for storing product. A PSD minor limit has been added to the permit to make this modification minor under PSD and to add federally-enforceable limits for particulate emissions. (See discussion under the *State Rule Applicability – Entire Source - 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)* section of this TSD.)

- (c) PSD Minor Limit
Under CP 091-6543-00053, issued October 7, 1996, the source added a dryer (SEACAP). Under CP 091-8507-00053, issued July 31, 1997, the source added a dryer (DCC). Under MSM 091-11692-00053, the source modified three (3) dryers (DCC, SEACAP and SD-3). A PSD minor limit has been added to the permit to make these modifications minor under PSD and to add federally-enforceable limits for particulate emissions. (See discussion under the *State Rule Applicability – Entire Source - 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)* section of this TSD.)

Air Pollution Control Justification as an Integral Part of the Process

The following justification was incorporated into this permit from the previous Part 70 permit T091-6789-00053, issued May 1, 2001 and Significant Permit Modification 091-21489-00053, issued on June 30, 2006:

The cyclone and baghouses are considered as an integral part of the spray dryer P-SD (E-110). The purpose of the cyclone and baghouses is for product capture. All of the product throughput from the dryer are pneumatically conveyed through first the cyclone that captures 80 percent of the product and then to the baghouses which captures nearly 20 percent. Under Significant Permit Modification 091-21489-00053, issued on June 30, 2006, the source added another baghouse to the existing two (2) baghouses. This new baghouse serves the same product capture function as the existing baghouses. The baghouses operate in parallel. The cyclone does not vent directly to the atmosphere. Emissions from the cyclone are vented to the baghouses and then to a scrubber for particulate control. Emissions are routed through a heat recovery system before they are emitted to the atmosphere. Financial data on the cost of the equipment in comparison to the cost savings experienced through product captured is contained in an OAQ confidential file.

IDEM, OAQ evaluated the justifications and agreed that the cyclone and baghouses shall be considered as an integral part of the spray dryer, P-SD (E-110). Therefore, the permitting level was determined using the potential to emit after the cyclone and baghouse but before the scrubber. Operating conditions in the proposed permit specify that the cyclone and baghouse shall operate at all times when the spray dryer is in operation.

The following justification was incorporated into this permit from the ATSD to Part 70 permit T091-6789-00053, issued May 1, 2001:

The baghouses controlling P-SILOS, P-BBL, P-SB1, P-SB2, and P-BL are considered an integral part of these operations because they are involved in pneumatic conveyance and separate product from air after the product is transported. Therefore, the baghouses for P-SILOS, P-BBL, P-SB1, P-SB2, and P-BL are necessary for the proper operation of the process.

IDEM, OAQ evaluated the justifications and agreed that the baghouses shall be considered as an integral part of P-SILOS, P-BBL, P-SB1, P-SB2, and P-BL. Therefore, the permitting level was determined using the potential to emit after the baghouses. Operating conditions in the proposed permit specify that the baghouses shall operate at all times these facilities are in operation.

During the Title V renewal process, Criterion Catalysts submitted the following justification such that the baghouses on the day bins (S-DBE and S-DBW), the mixers (S-MIX), the pneumatic transfer (S-PT), and the bag loadout (ADC #1) be considered as an integral part of the catalyst production process:

During the materials production process (S-DBE and S-DBW), the materials are transferred pneumatically to the day bins. The baghouses separate materials from the air and the material falls back into the day bins. During the mixing process (S-MIX), the baghouses separate materials from the air and the material falls back into the mixer. During the materials transfer process (S-PT), materials are transferred pneumatically. Materials that might be lost to the atmosphere are captured by the baghouses when the material has reached its destination. During the materials loading process (ADC #1), materials that might be lost to the atmosphere are captured by the

baghouses and returned to the shipping container. The primary function of the pneumatic conveyance systems is to entrain process materials in an air stream and transport them from one part of the plant to their destination. The function of the baghouse is to separate raw materials from the air transport medium when the materials have reached their destinations. The source estimates that a large percentage of the material being pneumatically transported would be lost or spoiled without use of the baghouses and that the pneumatic transfer process cannot function properly without these baghouses. Since the material being transported is very fine and it is being transported in a rapidly moving air stream, it would tend to remain airborne and escape to the atmosphere if not retained by the filtration effect of the baghouse. The baghouse allows the air to escape at the end of the transport train while retaining the valuable product. The source estimates that the efficiency of the baghouses in separating product from the transport air stream exceeds 99.99%. Therefore, the use of the baghouse allows near complete recovery of material that might otherwise be lost after transport.

Economic Benefit for Materials Recovery in Baghouse for S-DBE and S-DBW:

	Amount	Units
Uncontrolled Emissions (Material Throughput)	5,344	tons/year
Percent Material Lost Without Baghouse ¹	50	%
Material Recovered	2,672	tons/year
Cost of Material Recovered	\$ 1,100	per ton
Value of Material Collected With Baghouse	\$ 2,939,200	per year
Annualized Cost of Baghouse (2)	\$ 20,000	per year
Economic Benefit of Baghouse Systems	\$ 2,919,200	per year

¹ The source estimates that at least 50% of material being pneumatically transported would be lost to the atmosphere or spill onto the surrounding ground upon arrival at the day bins without the use of the integral baghouse.

Economic Benefit for Materials Recovery in Baghouse for S-MIX:

	Amount	Units
Uncontrolled Emissions (Material Throughput)	327.6	tons/year
Percent Material Lost Without Baghouse ²	50	%
Material Recovered	163.8	tons/year
Cost of Material Recovered	\$ 1,100	per ton
Value of Material Collected With Baghouse	\$ 180,180	per year
Annualized Cost of Baghouse (1)	\$ 8,000	per year
Economic Benefit of Baghouse Systems	\$ 172,180	per year

² The source estimates that at least 50% of material being mixed would be lost to the atmosphere or spill onto the surrounding ground without the use of the integral baghouse.

Economic Benefit for Materials Recovery in Baghouse for S-PT:

	Amount	Units
Uncontrolled Emissions (Material Throughput)	1,276	tons/year
Percent Material Lost Without Baghouse ³	90	%
Material Recovered	1,148.4	tons/year
Cost of Material Recovered	\$ 1,100	per ton
Value of Material Collected With Baghouse	\$ 1,263,340	per year
Annualized Cost of Baghouse (1)	\$ 8,000	per year
Economic Benefit of Baghouse Systems	\$ 1,255,340	per year

³ The source estimates that at least 90% of material being pneumatically transported would be lost to the atmosphere or spill onto the surrounding ground without the use of the integral baghouse.

Economic Benefit for Materials Recovery in Baghouse for ADC #1:

	Amount	Units
Uncontrolled Emissions (Material Throughput)	1,730	tons/year
Percent Material Lost Without Baghouse ⁴	50	%
Material Recovered	865	tons/year
Cost of Material Recovered	\$ 1,100	per ton
Value of Material Collected With Baghouse	\$ 951,500	per year
Annualized Cost of Baghouse (1)	\$ 8,000	per year
Economic Benefit of Baghouse Systems	\$ 943,500	per year

4 The source estimates that at least 50% of material being pneumatically transported would be lost to the atmosphere or spill onto the surrounding ground during loading without the use of the integral baghouse.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for emission offset, 326 IAC 2-3.
- (b) LaPorte County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) LaPorte County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.” The following table shows the unrestricted potential to emit of the source, before any controls or limits.

Pollutant	Actual Emissions (tons/year)
PM	Greater than 250
PM10	Greater than 250
SO ₂	Less than 100
VOC	Less than 100
CO	Less than 100
NO _x	Greater than 250
Single HAP	Less than 10
Combination HAPs	Less than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 and NO_x are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) This type of operation is in one of the twenty-eight (28) listed source categories (chemical process paints) under 326 IAC 2-7. Therefore, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward the determination of Part 70 applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM10	27
PM2.5	24
SO ₂	0
VOC	1
CO	13
NO _x	10
HAP	Not reported

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The source was issued a Part 70 Operating Permit on May 1, 2001. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Storage Bin (P-SB1)	2.98	2.98	--	--	--	--	--
Storage Bin (P-SB2)	2.98	2.98	--	--	--	--	--
Silos (P-SILOS)	25.0	14.7	--	--	--	--	--
Day Bin (S-DBE)	24.1	24.1	--	--	--	--	--
Day Bin (S-DBW)	24.1	24.1	--	--	--	--	--
Reactor (P-SAR1)	38.2	38.2	--	--	--	--	--
Reactor (P-SAR2)	38.2	38.2	--	--	--	--	--
Reactor (P-ASR1)	68.8	68.6	1.93	--	--	--	--
Reactor (P-ASR2)	68.8	68.6	1.93	--	--	--	--
Bulk Bag Loading (P-BBL)	12.5	0.404	--	--	--	--	--
Bulk Loading (P-BL)	12.5	0.09	--	--	--	--	--
Mixers (S-MIX)	0.33	0.33	--	--	--	--	--
Calciner (S-C1)	8.2	8.2	--	--	--	534	--
Calciner (S-C2)	8.2	8.2	--	--	--	534	--
Pneumatic Transfer (S-PT)	1.28	1.28	--	--	--	--	--
Bag Loadout (ADC#1)	1.73	1.73	--	--	--	--	--
Spray Dryer (P-SD)	29.0	29.0	0.21	1.93	29.4	17.5	0.66
Dryer (S-D1)	0.5	0.5	--	0.3	5.1	6	0.114
Boiler (BLR2)	0.5	0.5	--	0.4	5.6	6.6	0.125
Dryer (SEACAP)	24.5	14.5	0.78	3.72	4.03	0.36	--
Dryer (SD-3)	0.44	0.44	3.18	12.18	7.29	0.28	--
Bulk Loading (P-BLR)	0.53	0.53	--	--	--	--	--
Total Emissions	394	349	8.03	18.5	51.4	1099	0.90

-- Emissions are insignificant (less than 0.1 tons per year).

The PTE figures are from the TSD for T091-6789-00053, issued on May 1, 2001, except as noted below.

The PTE figures for SEACAP, SD-3, P-BLR, and P-SD represent emissions as limited by PSD minor source 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.

The figures for PM for P-BBL, and P-BL represent emissions as limited by PSD minor source conditions in the permit. These facilities are equipped with integral control devices. The PTE after the effect of the integral control devices is shown in the table on page 4 of Appendix A and are much lower than the values shown above.

The figures for P-SILOS represent emissions as limited by PSD minor source conditions in the permit. These facilities are equipped with integral control devices. The PTE after the effect of the integral control devices is shown in the table on page 4 of Appendix A and are much lower than the values shown above.

- (a) This existing stationary source is major for PSD because the emissions of at least one criteria pollutant are greater than one hundred (>100) tons per year, and it is in one of the twenty-eight (28) listed source categories.
- (b) This existing stationary source is major for Emission Offset because the emissions of the nonattainment pollutant, NOx are greater than one hundred (>100) tons per year.
- (c) Fugitive Emissions
 This type of operation is one of the twenty-eight (28) listed source categories (chemical process plants) under 326 IAC 2-2 and 326 IAC 2-3. Therefore, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing 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 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 existing emission unit and specified pollutant subject to CAM:

Facility	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (ton/yr)	Controlled PTE (ton/yr)	Major Source Threshold	CAM Applicable (Y/N)	Large Unit (Y/N)
Calciner (S-C1)	PM/PM10	Y	Y	8199	8.2	100	Y	N
Calciner (S-C2)	PM/PM10	Y	Y	8199	8.2	100	Y	N
Calciner (S-C1)	NOx	N	N	534	534	100	N	N
Calciner (S-C2)	NOx	N	N	534	534	100	N	N
Spry Dryer (P-SD)*	PM/PM10	Y	Y	26.6	26.6	100	N	N
Dryer (SEACAP)	PM/PM10	Y	Y	2790	2.79	100	Y	N

* Dryer P-SD is subject to 40 CFR 60, Subpart UUU, which is an emission limitation exempted from CAM.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to S-C1, S-C2, and SEACAP for PM/PM10. P-SD is subject to 40 CFR 63, Subpart UUU, and is exempt from CAM requirements. A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

- (b) The requirements of the New Source Performance Standards for Fossil-Fuel-Fired Steam Generators, (326 IAC 12, 40 CFR 60, Subpart D), are not included in this permit for the natural gas-fired boiler (BLR2 (E-68)) because the maximum heat input capacity is less than 250 MMBtu/hr.
- (c) The requirements of the New Source Performance Standards for Electric Utility Steam Generating Units, (326 IAC 12, 40 CFR 60, Subpart Da), are not included in this permit for natural gas-fired boiler (BLR2 (E-68)) because it is not an electric utility steam generating unit.
- (d) The requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units, (326 IAC 12, 40 CFR 60, Subpart Db) are not included in this permit for the natural gas-fired boiler (BLR2 (E-68)). This boiler has a heat input capacity less than 100 MMBtu/hr.
- (e) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60, Subpart Dc), are not included in this permit for the natural gas-fired boiler (BLR2 (E-68)) because this boiler was constructed prior to June 9, 1989.
- (f) The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries (40 CFR 60.730, Subpart UUU, 326 IAC 12) are not included in this permit for the two (2) calciners (S-C1 (EX-300-25) and S-C2 (EX-130-005)) and the dryer S-D1 (EX-300-23) because these units were constructed prior to April 23, 1986 and have not been modified or reconstructed since that time.
- (g) The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries (40 CFR 60.730, Subpart UUU, 326 IAC 12) are not included in this permit for the dryers identified as SEACAP (EX-529) and SD-3 (EX-300-35) because the amount of material processed in these dryers is less than 50% by weight of any combination of the seventeen (17) minerals listed in 40 CFR 60.731.
- (h) The one (1) spray dryer identified as P-SD (E-110) is subject to the requirements of the New Source Performance Standards for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart UUU, 326 IAC 12 because this facility was modified after April 23, 1986 and is a dryer at a metallic mineral processing plant. Pursuant to 40 CFR 60.730(a), the one (1) spray dryer identified as P-SD (E-110) is an affected source. During the Title V renewal process, the source requested that IDEM add the requirements for using a scrubber to control particulate emissions from spray dryer P-SD to their permit. Nonapplicable portions of the NSPS are not included in the permit. The affected source is subject to the following portions of 40 CFR 60, Subpart UUU:
 - (1) 40 CFR 60.730(a), (c)
 - (2) 40 CFR 60.731
 - (3) 40 CFR 60.732
 - (4) 40 CFR 60.733
 - (5) 40 CFR 60.734(a), (d)
 - (6) 40 CFR 60.735
 - (7) 40 CFR 60.736
 - (8) 40 CFR 60.737
- (i) The requirements of the New Source Performance Standard for Metallic Mineral Processing Plants (326 IAC 12, 40 CFR 60, Subpart LL) are not included in this permit. This source is not a metallic mineral processing plant, as that term is defined in 40 CFR 60.381. This plant does not process metallic mineral ores with the intent to create metallic mineral concentrates which are then transferred to facilities at non-adjacent locations that will subsequently process metallic concentrates into purified metals (or other products).

- (j) The requirements of the National Emission Standards for Halogenated Solvent Cleaning (326 IAC 20-6, 40 CFR 63, Subpart T) are not included in this permit for the degreasing operations. The cold solvent cleaning machine does not use a solvent containing methylene chloride, perchlorethylene, trichlorethylene, 1,1,1-trichlorethane, carbon tetrachloride, chloroform or any combination of these halogenated HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)

This source is in 1 of the 28 source categories, therefore, fugitive emissions of particulate matter and volatile organic compounds (VOC) are counted towards applicability of PSD and Emission Offset.

This source was constructed in 1951 and is located in LaPorte County. At the time that the PSD regulations were promulgated in August 1977, the potential to emit of PM, PM10 and NOx from the emission units at this source was greater than 100 tons per year, and this source was a major source under PSD.

In 1983, the source added a bulk bag loading process (P-BBL) and a bulk loading process (P-BL). The uncontrolled increase in potential to emit of PM due to this modification was greater than the PSD significant level (25 tons per year). However, this modification did not trigger PSD review because the increase in PTE for PM was effectively limited by conditions in the permit to less than 25 tons per year by requirements to use baghouses to control particulate emissions. In order to make this requirement a federally enforceable limit, and therefore, to make the modification performed in 1983 a minor modification under PSD, the following limits have been added to the permit:

The emissions of PM from the bulk bag loading process (P-BBL) and the bulk loading process (P-BL) shall each be limited to less than 2.85 pounds per hour.

In 1987, the source added silos for storing product. The uncontrolled increase in potential to emit of PM and PM10 due to this modification was greater than the PSD significant levels for PM and PM10 (25 tons per year and 15 tons per year, respectively). However, this modification did not trigger PSD review because the increase in PTE for PM and PM10 was effectively limited by conditions in the permit to less than 25 tons per year and 15 tons per year, respectively by requirements in the permit to use baghouses to control particulate emissions. In order to make this requirement a federally enforceable limit, and therefore, to make the modification performed in 1987 a minor modification under PSD, the following limits have been added to the permit:

- (a) The emissions of PM from each of the fourteen (14) silo segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, E-201, E-202, E-193, E203, and E-194) shall be limited to less than 0.407 pounds per hour.
- (b) The emissions of PM10 from each of the fourteen (14) silo segments (E-195, E-196, E-197, E-198, E-216, E-217, E-199, E-200, E-204, E-201, E-202, E-193, E-203 and E-194) shall be limited to less than 0.24 pounds per hour.

Between 1995 and 1997, the source modified spray dryer P-SD and added two new dryers (identified as SEACAP and DCC). The SEACAP dryer was constructed under CP 091-6543-00053, issued October 7, 1996 and the DCC dryer was constructed under CP 091-8507-00053, issued July 31, 1997. (The catalyst dryer identified as DCC was removed in September 2007.) However, it is unlikely that these changes triggered PSD review because the principle emissions are PM and PM10, which are controlled by baghouses. In addition, dryers P-SD and SEACAP are now subject to PSD minor limits due to subsequent modifications (see discussion of Minor Source Modification 091-11692-00053, issued March 7, 2000 for the SEACAP dryer and Significant Source Modification 091-21226-00053, issued on January 20, 2006 for the P-SD dryer).

Under Minor Source Modification 091-11692-00053, issued March 7, 2000, the source modified three (3) dryers (DCC, SEACAP and SD-3). The uncontrolled increase in potential to emit of PM and PM10 due to this modification was greater than the PSD significant levels for PM and PM10 (25 tons per year and 15 tons per year, respectively). However, this modification did not trigger PSD review because the PTE for PM and PM10 for the SEACAP and DCC dryers was effectively limited by conditions in previous permits to less than 25 tons per year and 15 tons per year, respectively, by requirements to use baghouses to control particulate emissions. These existing limits limited the increase in PTE for PM and PM10 due to this modification to 3.4 tons per year. In order to make this requirement a federally enforceable limit, and therefore, to make the modification performed in 2000 a minor modification under PSD, the following limits have been added to the permit (The catalyst dryer identified as DCC was removed in September 2007.):

- (a) The emissions of PM from the SEACAP dryer shall be limited to less than 5.6 pounds per hour.
- (b) The emissions of PM10 from the SEACAP dryer shall be limited to less than 3.3 pounds per hour.
- (c) The emissions of PM and PM10 from the SD-3 dryer shall be limited to less than 0.1 pounds per hour.

On June 15, 2004, LaPorte County was designated as a nonattainment area for the 8-hour ozone standard. The 8-hour ozone nonattainment designations in 69 FR 23858 were incorporated in 326 IAC 1-4-1 effective December 12, 2004. The potential to emit of NOx of this source, after limits, is greater than 100 tons per year. Therefore, this source is a major source under 326 IAC 2-3 (Emission Offset). Any future modifications that increase VOC or NOx emissions must be reviewed in accordance with 326 IAC 2-3.

Under Administrative Amendment 091-21117-00053, issued on June 23, 2005, the source added selective catalytic reduction (SCR) systems to the calciners, replaced an existing screener and added a fines grinder feed system with baghouses for control of fugitive particulate matter. This modification did not trigger PSD review because PM and PM10 emissions decreased due to this modification and the increase in emissions due to the addition of the SCR system was below the exemption thresholds in 326 IAC 2-1.1-3(e)(1).

Under Significant Source Modification 091-21226-00053, issued on January 20, 2006, the source increased the throughput capacity of the spray dryer (P-SD) and added a bulk loading process (P-BLR). The increase in potential to emit of PM and PM10 before controls and limits for this modification (68.2 tons per year) was greater than the PSD significant levels (25 tons for PM and 15 tons for PM10, respectively). However, this modification did not trigger PSD review because the source accepted enforceable limits at the time of the modification that limited the increase in potential to emit of PM and PM10 after controls (14.1 tons per year) to less than the PSD significant levels. The source used a netting analysis and computed the increase in PTE for PM and PM10 due to the modification using a Future Potential to Past Actuals test. SSM 091-21226-00053 limited PM and PM10 emissions as follows:

- (a) The PM and PM10 emissions from the bulk loading process identified as P-BLR shall be limited to 0.12 pounds per hour.
- (b) The PM and PM10 emissions from the spray dryer identified as P-SD (E-110) shall be limited to 6.62 pounds per hour.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The potential to emit for this source is less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6 because the potential to emit PM10 is greater than 250 tpy. (See 326 IAC 2-6-7(a)(1)). This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6.

326 IAC 5-1 (Opacity Limitations)

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

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is not located in a county listed in 326 IAC 6-5-1(a) and has not added a facility with the potential to emit fugitive particulate matter, which requires a permit as set forth in 326 IAC 2, after December 13, 1985. Therefore, pursuant to 326 IAC 6-5-1, this source is not subject to the requirements of 326 IAC 6-5.

State Rule Applicability – Boiler BLR 2

326 IAC 6-2-3 (PM Emissions for Sources of Indirect Heating)

The natural gas-fired boiler (BLR 2 (E-68)) was constructed prior to September 21, 1983. Pursuant to 326 IAC 6-2-3, boilers existing and in operation before September 21, 1983 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

Where

C = max ground level concentration (= 50 Φ m/m³)

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

N = number of stacks = 1

a = plume rise factor = 0.67

h = stack height (ft)

The more stringent PM emission limit for this boiler is 0.8 lbs/MMBtu

State Rule Applicability – Material Handling and Dryers

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2, the particulate emissions from the listed units shall be limited as shown in the following table:

Unit ID	Allowable Emission Rate (lb/ton throughput)
P-SB1 (T-32)	1.78
P-SB2 (T-87)	1.78
P-SILOS	1.97
S-DBE (EX-120-005A)	3.03
S-DBW (EX-120-005B)	3.03
P-SAR1 (T-33)	1.89
P-SAR2 (T-128)	1.89
P-ASR1 (T-30)	1.87
P-ASR2 (T-129)	1.87
P-BBL (E-160)	5.30
P-BL (E-190)	1.90
S-MIX (EX-120-007A/7B)	3.34
S-C1 (EX-300-25)	3.63
S-C2 (EX-130-005)	3.63
S-PT (EX-104)	6.48
ADC#1 (EX-631-023)	6.95
S-D1 (EX-300-23)	2.73
SEACAP dryer	3.40
SD-3	2.99
P-SD (E-110) *	1.53
P-BLR	1.78

The process weight rates are not shown because these figures are deemed confidential. The process weight rates are in a confidential file at IDEM.

* Dryer P-SD is required by 40 CFR 60, Subpart UUU to control particulate emissions to less than 0.057 gram per dry standard cubic meter (or 0.025 grains per dry standard cubic foot). The limits in 40 CFR 60, Subpart UUU are more stringent than the limits in 326 IAC 6-3-2. Calculations are as follows:

Dryer P-SD: $0.025 \text{ gr/dscf} \times 81,800 \text{ acfm} \times 60 \text{ min/hr} \times 1 \text{ lb/7000 gr} = 17.5 \text{ lbs/hr}$

Therefore, 326 IAC 6-3-2 does not apply to dryer P-SD.

The associated baghouses, fabric filters and cyclone shall be in operation at all times the units are in operation, in order to comply with these limits.

State Rule Applicability – Degreaser

326 IAC 8-3-2 (Cold Cleaner Operations)

This cold cleaner degreasing facility is located in LaPorte County, was constructed after January 1, 1980 and is used to perform organic solvent degreasing operations. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee of a cold cleaning facility shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;

- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements; and
- (f) Store waste solvent only in covered 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.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

This cold cleaner degreasing facility is located in LaPorte County, was constructed after January 1, 1990, is used to perform organic solvent degreasing operations and does not have a remote solvent reservoir. Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (1) The solvent volatility is greater than two (2) kilo Pascals (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));
 - (2) The solvent is agitated; or
 - (3) The solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (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.
- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (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)):
 - (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (2) A water cover when solvent used is insoluble in, and heavier than, water.
 - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaning facility shall ensure that the following operating requirements are met:

- (a) Close the cover whenever articles are not being handled in the degreaser.
- (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (c) 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.

Testing Requirements

- (a) The Permittee shall conduct PM and PM10 testing for the spray dryer identified as SEACAP within 180 day of issuance of this permit, or within sixty (60) days of the resumption of operations at this emission unit, whichever is later, utilizing methods as approved by the Commissioner. This dryer was previously tested in 1998. At the time of issuance, this dryer was not operating. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C- Performance Testing. This test is required to determine compliance with the 326 IAC 2-2 (PSD) minor limits on this emission unit.
- (b) The Permittee shall perform PM and PM10 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. This test is required to determine compliance with the 326 IAC 2-2 (PSD) minor limits on this emission unit.

Emission unit P-SD is required under the federal rule (40 CFR 60, Subpart UUU) to comply with the mass emission standard using either a dry control device (baghouses) or a wet scrubber. This permit includes requirements whereby the Permittee can comply with the requirements using just the integral baghouses or the integral baghouses and the scrubber. Since dryer P-SD can control emissions under two operating scenarios, dryer P-SD shall be tested under both operating scenarios (dry control and wet scrubber) to verify compliance with the mass emission standard while operating under both operating scenarios. Therefore, dryer P-SD shall be tested while using the three (3) baghouses to control emissions, and while using the three (3) baghouses and the wet scrubber to control emissions.

The Permittee is required to conduct testing under both Alternative Operating Scenario 1 and Alternative Operating Scenario 2. The PM and PM10 testing for each alternative operating scenario shall be conducted as follows:

- (1) Alternative Operating Scenario 1 (using the three (3) baghouses to control particulate emissions): The Permittee shall conduct testing prior to December 2011 (note: this dryer using three baghouses to control particulate was tested on December 21, 2006). This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration.
- (2) Alternative Operating Scenario 2 (using the wet scrubber to control particulate emissions): The Permittee shall conduct testing within sixty (60) days of beginning operation using this operating scenario. This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration.

Should the Permittee choose to operate dryer P-S under only one operating scenario, then the Permittee shall notify IDEM.

- (c) Testing is not required for the emission units identified as P-BBL, P-BL, P-SILOS, and P-BLR. The emissions from these units are very small compared to the applicable limit. Calculations predict that these units can comply with applicable limits. The particulate control and monitoring requirements included in the permit are sufficient to ensure compliance with the PSD minor limits.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions 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 requirements applicable to this source are as follows:

- (a) Visible emission notations of the exhaust from the stacks for S-C1 (DCC baghouse), S-C2 (DCC baghouse), P-SB1 (stack V), P-SB2 (stack K), SEACAP (stack P3), P-BBL (stack BB), P-BL (stack CC), and P-BLR (stack GG) 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. 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. 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. 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. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.
- (b) 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, SEACAP, P-BBL, P-BL, and P-BLR at least once per day when these facilities are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually. These conditions are necessary to demonstrate compliance with 40 CFR 64 (CAM).
- (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. 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). 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.

- (d) The spray dryer identified as P-SD (E-110) has compliance determination and compliance monitoring requirements under 40 CFR 60, Subpart UUU. These requirements are discussed in the *Federal Rule Applicability* section of this TSD.

These monitoring conditions are necessary because the baghouses and cyclones must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), 40 CFR 64 (CAM), 40 CFR 60, Subpart UUU, and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the Part 70 permit renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit renewal application for the purposes of this review was received on July 29, 2005.

Conclusion

The operation of this stationary alumina powder and speciality chemical production plant shall be subject to the conditions of this Part 70 permit renewal T091-21619-00053.

Appendix A: Emission Calculations
Particulate Emissions from the Railcar Loading Process

Company Name: Criterion Catalysts & Technologies, L.P.
 Address: 1800 East US 12, Michigan City, IN 46360
 Title V: 091-21619-00053
 Reviewer: ERG/ST
 Date: September 10, 2007

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	P-BLR	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)**

Company Name: Criterion Catalysts & Technologies, L.P.
 Address: 1800 East US 12, Michigan City, IN 46360
 Title V: 091-21619-00053
 Reviewer: ERG/ST
 Date: September 10, 2007

Process	Process Rate (Throughput) (lbs/hr)	Emission Point ID#	Outlet Grain Loading (grain/acscf)	Air Flow Rate (acfm)	PTE of PM/PM10 (tons/yr)	PTE of PM/PM10 (lbs/hr)
Spray Dryer	73,000	P-SD	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

$$\text{Maximum Allowable Emissions} = E = 4.10 * P^{0.67}$$

$$\text{Where: } P = \text{Process Rate in tons per hour} = 36.5$$

$$E = \text{Rate of Emissions in pounds per hour}$$

$$\text{Maximum Allowable Emissions} = 45.7 \text{ lbs/hr}$$

Compliance with 40 CFR 60, Subpart UUU - Particulate Emission Limitations

Particulate emissions are limited to 0.25 gr/dscf

$$\text{Maximum Allowable Emissions (lbs/hr)} = 0.025 \text{ gr/dscf} \times 81,800 \text{ acfm} \times 60 \text{ min/hr} \times 1 \text{ lb}/7,000 \text{ gr} = 17.5 \text{ lbs/hr}$$

Therefore, the particulate emission limitation in 40 CFR 60, Subpart UUU is the more stringent limit.

Methodology

$$\text{PTE of PM/PM10 (tons/yr)} = \text{Outlet Concentration (grain/acscf)} \times \text{Air Flow (acfm)} \times 60 \text{ (min/hr)} \times 8760 \text{ (hr/yr)} \times 1/7000 \text{ (lb/grain)} \times 1/2000 \text{ (ton/lb)}$$

$$\text{PTE of PM/PM10 (lbs/hr)} = \text{Outlet Concentration (grain/acscf)} \times \text{Air Flow (acfm)} \times 60 \text{ (min/hr)} \times 1/7000 \text{ (lb/grain)}$$

**Appendix A: Combustion Emission Calculations
Spray Dryer (P-SD) Burner**

Company Name: Criterion Catalysts & Technologies, L.P.
 Address: 1800 East US 12, Michigan City, IN 46360
 Title V: 091-21619-00053
 Reviewer: ERG/ST
 Date: September 10, 2007

Description	Total Heat Input Capacity (MMBtu/hr)	Total Max. Potential Throughput (MMCF/yr)
Spray Dryer Burner	80.0	701

Pollutant Emission Factors (lbs/MMCF)						
PM*	PM10*	SO ₂	NO _x **	CO	VOC	HAPs
7.6	7.6	0.6	50	84.0	5.5	1.89

Potential To Emit (tons/yr)							
Emission Unit ID	PM	PM10	SO ₂	NO _x	CO	VOC	HAPs
Spray Dryer Burner	2.66	2.66	0.21	17.5	29.4	1.93	0.66

*PM and PM10 emission factor are for condensable and filterable PM and PM10 combined.

**Emission factors for NO_x: Low Nox Burner = 50 lbs/MMCF

Emission factors from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

1000 Btu per cubic foot of natural gas

Methodology

Max. Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu

PTE (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1ton/2000 lbs

Appendix A: Emission Calculations
Emission Summary

Company Name: Criterion Catalysts & Technologies, L.P.
 Address: 1800 East US 12, Michigan City, IN 46360
 Title V: 091-21619-00053
 Reviewer: ERG/ST
 Date: September 10, 2007

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.

Facility	Emission Summary (tons/year)								
	Uncontrolled		Controlled/Limited		SO ₂	VOC	CO	NOx	HAPs
	PM	PM10	PM	PM10					
P-SB1*	2.98	2.98	2.98	2.98	--	--	--	--	--
P-SB2*	2.98	2.98	2.98	2.98	--	--	--	--	--
P-SILOS*	3.89	3.89	3.89	3.89	--	--	--	--	--
S-DBE*	24.1	24.1	24.1	24.1	--	--	--	--	--
S-DBW*	24.1	24.1	24.1	24.1	--	--	--	--	--
P-SAR1	38.2	38.2	38.2	38.2	--	--	--	--	--
P-SAR2	38.2	38.2	38.2	38.2	--	--	--	--	--
P-ASR1	68.8	68.8	68.8	68.8	1.93	--	--	--	--
P-ASR2	68.8	68.8	68.8	68.8	1.93	--	--	--	--
P-BBL*	0.404	0.404	0.404	0.404	--	--	--	--	--
P-BL*	0.09	0.09	0.09	0.09	--	--	--	--	--
S-MIX *	0.33	0.33	0.33	0.33	--	--	--	--	--
S-C1	8199	8199	8.2	8.2	--	--	--	534	--
S-C2	8199	8199	8.2	8.2	--	--	--	534	--
S-PT*	1.28	1.28	1.28	1.28	--	--	--	--	--
ADC#1*	1.73	1.73	1.73	1.73	--	--	--	--	--
S-D1	0.5	0.5	0.5	0.5	--	0.3	5.1	6	0.114
SEACAP	2790	2790	24.5	14.5	0.78	3.72	4.03	0.36	--
SD-3	0.31	0.31	0.44	0.44	3.18	12.18	7.29	0.28	--
P-SD*	33.4	33.4	29.0	29.0	0.21	1.93	29.4	17.5	0.66
BLR2	0.5	0.5	0.5	0.5	--	0.4	5.6	6.6	0.125
P-BLR	52.6	52.6	0.53	0.53	--	--	--	--	--
Totals	19,551	19,551	348	338	8.03	18.5	51.4	1099	0.90

* Controls are integral to process.