



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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Indianapolis, Indiana 46204  
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TO: Interested Parties / Applicant

DATE: December 20, 2007

RE: Johns Manville International, Inc. / 177-22598-00006

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

**Johns Manville International, Inc.  
814 Richmond Ave  
Richmond, Indiana 47374**

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

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

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

Operation Permit No.: T177-22598-00006	
Issued by:  <i>Original signed by</i> Matt Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: December 20, 2007  Expiration Date: December 20, 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.4 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)]

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The Permittee owns and operates a stationary a fiberglass insulation manufacturing plant.

Source Address:	814 Richmond Ave, Richmond, Indiana 47374
Mailing Address:	814 Richmond Ave, Richmond, IN 47374
General Source Phone Number:	(765) 973-5243
SIC Code:	3296
County Location:	Wayne
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

- (a) Raw Material Handling, Storage and Batching Equipment for Lines 2 and 3:
- (1) One (1) Rail car Receiving station; with a maximum capacity of 40.5 tons per hour, installed in 1967, and exhausting to stack S165. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car and a baghouse;
  - (2) Eight (8) Raw Material Silos, installed in 1967. Raw materials are loaded into the batch silos and vented to fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28. The silo capacities are as follows: Silo #1 - 152 tons, Silo #2 - 23 tons, Silo #3 - 134 tons, Silo #4 - 51.8, Silo #5 - 106.7, Silo #6 - 54.6, Silo #7 - 101.3, and Silo #8 - 149.9.
  - (3) Two (2) day bins; identified as Day Bin 1 and Day Bin 2; constructed in 2006; each with a maximum storage capacity of 57.5 tons; emissions controlled by baghouses (BH167 and BH168); exhausting to stacks S167 and S168. Product from the mixer is transferred to the day bins using an enclosed conveyor system.
  - (4) One (1) Mixer; constructed in 2006; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a sock filter; exhausting indoors to general ventilation. Raw materials from the storage silos are weighed and transferred to the mixer.
  - (5) One (1) Batch Transfer System; constructed in 2006; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a baghouse;

exhausting indoors to general ventilation. Processed materials from the mixer are transferred to the day bins via the batch delivery/bucket elevator system.

- (6) One (1) Weigh Scale; constructed in 1967; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a sock filter; exhausting indoors to general ventilation. Raw materials from the storage silos are weighed and transferred to the mixer.
- (b) One (1) Electric Melter; constructed in 2006; a maximum production rate of 20,125 pounds of molten glass per hour; emissions controlled by a baghouse and exhausting to stack S166. The molten glass flows from the melter to the Line 2 and Line 3 fiber forming/collection modules.
- (c) Forming Facilities:
  - (1) One (1) Line 2 Forming and Collection Module; installed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 9,450 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S2. Under 40 CFR Part 60, Subpart PPP, this facility is considered a spin wool fiberglass insulation manufacturing line. (Formerly referred to as the Line 2 forming chamber for unbonded product)
  - (2) One (1) Line 3 Forming and Collection Module; installed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 8,100 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S3. Under 40 CFR Part 60, Subpart PPP, this facility is considered a spin wool fiberglass insulation manufacturing line. (Formerly referred to as the Line 3 forming chamber for unbonded product)
- (d) Shredding and Packaging Facilities:
  - (1) One (1) Line 2 shredding process for unbonded product, installed in 1994, with a maximum capacity of 9,450 pounds per hour. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S85, S86 and S87;
  - (2) One (1) Line 2 packaging area for unbonded product, installed in 1994 and modified in 2006. The airstream is separated from the unbonded shredded product via a rotary condenser. Fiberglass collected in the rotary condenser is deposited in the packaging hopper and subsequently packaged for sale using a bagging system. The particulate emissions in the rotary condenser airstream are controlled by a baghouse system before the airstream is exhausted to Stacks

S85, S86 and S87. The total maximum capacity of Line 2 and Line 3 packaging areas is 27,540 pounds per hour;

- (3) One (1) Line 3 shredding process for unbonded product, installed in 1993, with a maximum capacity of 8,100 pounds per hour. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S12, S13 and S14; and
- (4) One (1) Line 3 packaging area for unbonded product, installed in 1993 and modified in 2006. The airstream is separated from the unbonded shredded product via a rotary condenser. Fiber glass collected in the rotary condenser is deposited in the packaging hopper and subsequently packaged for sale using a bagging system. The particulate matter emissions in the rotary condenser airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S12, S13 and S14. The total maximum capacity of Line 2 and Line 3 packaging areas is 27,540 pounds per hour.
- (e) One (1) natural gas-fired boiler, identified as B-2, installed in 1961, with a rated capacity of 25 MMBtu per hour. The airstream from the boiler is exhausted to stack S4.

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

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

- (a) One (1) melter dust recycling system, installed in 1961 and modified in 1999 and 2006, and exhausted to stack S34 [326 IAC 2-2] [326 IAC 6.5-10-11].
- (b) One (1) cold end housekeeping system, installed in 1988, with a total production capacity of 17,550 pounds per hour. The particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted indoors to general ventilation [326 IAC 2-2] [326 IAC 6.5-10-11].
- (c) Two (2) degreasing operations, constructed in 2006, that do not exceed 145 gallons per 12 months and are not subject to 326 IAC 20-6 [326 IAC 8-3-2][326 IAC 8-3-5].

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

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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]

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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)]

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- (a) This permit, T177-22598-00006, 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]

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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]

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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)]

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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)]

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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)]

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- (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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance 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]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (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]

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

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

- (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 T177-22598-00006 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)]

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- (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]

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- (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]**

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- (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 (for sources located in NA areas).

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 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.2 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.3 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.4 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.5 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.

#### C.6 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.7 Performance Testing [326 IAC 3-6]**

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

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 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.8 Compliance Requirements [326 IAC 2-1.1-11]**

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

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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.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.  
[326 IAC 1-5-3]

**C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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

**C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]**

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- (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.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

- (a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require 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.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

- (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, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
  - (1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(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.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (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 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.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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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) Raw Material Handling, Storage and Batching Equipment for Lines 2 and 3:
- (1) One (1) Rail car Receiving station; with a maximum capacity of 40.5 tons per hour, installed in 1967, and exhausting to stack S165. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car and a baghouse;
  - (2) Eight (8) Raw Material Silos, installed in 1967. Raw materials are loaded into the batch silos and vented to fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28. The silo capacities are as follows: Silo #1 - 152 tons, Silo #2 - 23 tons, Silo #3 - 134 tons, Silo #4 - 51.8, Silo #5 - 106.7, Silo #6 - 54.6, Silo #7 - 101.3, and Silo #8 - 149.9.
  - (3) Two (2) day bins; identified as Day Bin 1 and Day Bin 2; constructed in 2006; each with a maximum storage capacity of 57.5 tons; emissions controlled by baghouses (BH167 and BH168); exhausting to stacks S167 and S168. Product from the mixer is transferred to the day bins using an enclosed conveyor system.
  - (4) One (1) Mixer; constructed in 2006; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a sock filter; exhausting indoors to general ventilation. Raw materials from the storage silos are weighed and transferred to the mixer.
  - (5) One (1) Batch Transfer System; constructed in 2006; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a baghouse; exhausting indoors to general ventilation. Processed materials from the mixer are transferred to the day bins via the batch delivery/bucket elevator system.
  - (6) One (1) Weigh Scale; constructed in 1967; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a sock filter; exhausting indoors to general ventilation. Raw materials from the storage silos are weighed and transferred to the mixer.

(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 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), the allowable PM emissions from the following listed equipment:

Railcar Receiving Station  
S21 Raw Material silo  
S22 Raw Material silo  
S23 Raw Material silo  
S24 Raw Material silo  
S25 Raw Material silo  
S26 Raw Material silo

S27 Raw Material silo  
S28 Raw Material silo  
S164 raw material day bin  
Day Bin 1  
Day Bin 2  
Mixer  
Batch Transfer System  
Weigh Scale

Shall each not exceed 0.03 grain per dry standard cubic foot (dscf).

D.1.2 PSD Limitations [326 IAC 2-2-3]

Pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3 (Best Available Control Technology (BACT)), the raw material handling, storage and batching facilities stated above shall comply with the following limitations:

- (a) The Railcar Receiving Station shall be equipped with a bootlift device or similar device and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;
- (b) The raw material conveyor system (which operates as part of the railcar receiving station) shall be enclosed and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and.
- (c) The Raw Material Silos shall be equipped with fabric filters and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9.

D.1.3 PSD Minor Modification Limitations [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable to the modification completed pursuant to SSM 177-22008-00006, issued on August 10, 2006:

- (a) The PM10 emissions from the Day Bin 1 shall not exceed 0.01 pounds per hour.
- (b) The PM10 emissions from the Day Bin 2 shall not exceed 0.01 pounds per hour.
- (c) The PM10 emissions from the Mixer shall not exceed 0.005 pounds per hour.
- (d) The PM10 emissions from the Weigh Scale shall not exceed 0.005 pounds per hour.
- (e) The PM10 emissions from the Railcar Receiving Station shall not exceed 0.095 pounds per hour.
- (f) The PM10 emissions from the Raw Material Silos shall not exceed 0.04 pounds per hour, total.
- (g) The PM10 emissions from the Batch Transfer System shall not exceed 0.053 pounds per hour.

Compliance with these limits and the limits in Conditions D.2.1, D.4.1, and D.5.2 render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

#### D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

### Compliance Determination Requirements

#### D.1.5 Particulate Matter (PM) Control

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- (a) In order to comply with Conditions D.1.1 (for the rail car unloading station) and D.1.2(a)(1), the boot lift device or similar device and the baghouse used to control PM emissions and opacity from the rail car unloading station shall be in operation at all times the associated rail car unloading station is in operation.
- (b) In order to comply with Conditions D.1.1, D.1.2(c) and D.1.3, the baghouses used to control PM emissions from the Railcar Receiving Station, Raw Material Silos, Day Bin 1, Day Bin 2, Mixer, Batch Transfer System and Weigh Scale shall be in operation at all times the associated units are in operation.
- (c) In the event that bag failure is observed in a multi-compartment bagfilter, 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.

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

#### D.1.6 Visible Emissions Notations

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- (a) Daily visible emission notations of the stack exhaust from the Railcar Receiving Station, Raw Material Silos, Day Bin 1 and Day Bin 2 shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.1.7 Parametric Monitoring

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- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the Railcar Receiving Station, Raw Material Silos, and Day Bins at least once per day when the respective facilities are in operation.
- (b) When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 7.0 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

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- (a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

#### D.1.9 Record Keeping Requirements

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- (a) To document compliance with Conditions D.1.2 and D.1.6, the Permittee shall maintain records of daily visible emission notations required by Condition D.1.6. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.1.7, the Permittee shall maintain weekly records of the pressure drop during normal operations. 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 (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (b) One (1) Electric Melter; constructed in 2006; a maximum production rate of 20,125 pounds of molten glass per hour; emissions controlled by a baghouse and exhausting to stack S166. The molten glass flows from the melter to the Line 2 and Line 3 fiber forming/collection modules.

(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 PSD Minor Modification Limit [326 IAC 2-2]

Pursuant to SSM 177-22008-00006, issued August 10, 2006, and 326 IAC 2-2 (Prevention of Significant Deterioration), the Electric Melter shall comply with the following limitations:

- (a) The PM<sub>10</sub> emissions from the Electric Melter shall not exceed 0.49 pounds per hour.
- (b) The VOC emissions from the Electric Melter shall not exceed 1.1 pounds per hour.
- (c) The CO emissions from the Electric Melter shall not exceed 0.83 pounds per hour.

Compliance with these limits in combination with the limits in Conditions D.1.3, D.4.1, and D.5.2 will limit PM<sub>10</sub>, VOC and CO to less than 15, 40 and 100 tons per year and will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification completed pursuant to SSM 177-22008-00006 issued on August 10, 2006.

#### D.2.2 Particulate Matter (PM) Emission Limitations [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1-2(a), the particulate matter (PM) emissions from the Electric Melter, shall not exceed 0.03 grains per dry standard cubic foot.

#### D.2.3 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 the electric melter and its baghouse.

### Compliance Determination Requirements

#### D.2.4 Particulate Matter (PM) Control

- (a) In order to comply with Conditions D.2.1 and D.2.2, the baghouse for PM control shall be in operation at all times the associated Electric Melter is in operation.
- (b) In the event that bag failure is observed in a multi-compartment bagfilter, 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.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)]

In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM/PM<sub>10</sub>, VOC and CO testing on the Electric Melter no later than 180 days after initial startup. These tests shall be repeated once every five (5) years from the date of valid compliance demonstration

utilizing methods approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

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

#### **D.2.6 Visible Emissions Notations**

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- (a) Daily visible emission notations of the stack exhaust from the Electric Melter shall be performed 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.2.7 Parametric Monitoring**

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The Permittee shall record the pressure drop across the baghouse used in conjunction with the Electric Melter, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 4.0 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 and 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.2.8 Broken or Failed Bag Detection**

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- (a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with

abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

**D.2.9 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.6, the Permittee shall maintain once per day records of the visible emission notations of the Electric Melter stack S166 exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.2.7, the Permittee shall maintain once per day records of the pressure drop during normal operation when venting to the atmosphere. 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 (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.3 FACILITY OPERATION CONDITIONS**

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

(c) Forming Facilities:

- (1) One (1) Line 2 Forming and Collection Module; installed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 9,450 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S2. Under 40 CFR Part 60, Subpart PPP, this is considered a spin wool fiberglass insulation manufacturing line. (Formerly referred to as the Line 2 forming chamber for unbonded product)
  
- (2) One (1) Line 3 Forming and Collection Module; installed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 8,100 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S3. Under 40 CFR Part 60, Subpart PPP, this is considered a spin wool fiberglass insulation manufacturing line. (Formerly referred to as the Line 3 forming chamber for unbonded product)

(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 BACT Limitations [326 IAC 2-2(a)(3)]

Pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3(a)(3) (Best Available Control Technology (BACT)), and as revised by SSM 177-22008-00006 issued on August 10, 2006, each Forming and Collection Module shall comply with the following limitations:

Facility	Pollutant Emission Limitations		
	PM/PM10 (lbs/hr)	VOC (lbs/hr)	CO (lbs/hr)
Line 2 Forming and Collection	10.3	6.78	21.0
Line 3 Forming and Collection	10.3	6.78	21.0

PM/PM10 means that the PM limit and the PM10 limit are the same and shall be measured as the sum of the filterable and condensable fractions.

**D.3.2 PSD Minor Limitations [326 IAC 2-2]**

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(a) In order to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification completed pursuant to SSM 177-22008-00006 issued on August 10, 2006:

- (1) The CO emissions from the L2 Forming and Collection Module shall not exceed 15.6 pounds per hour.
- (2) The CO emissions from the L3 Forming and Collection Module shall not exceed 15.6 pounds per hour.

Compliance with these limits in combination with the limits in Condition D.2.1(c) shall limit the CO emissions increase of the modification described in SSM 177-22008-00006 to less than one hundred (100) tons per year.

(b) Pursuant to CP177-5873-00006, issued April 22, 1999 and revised by T177-22598-00006, each Forming and Collection Module shall comply with the following limitations for NOx in order to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable:

Facility	Pollutant Emission Limitations, lbs/hr NOx
Line 2 Forming and Collection	4.53
Line 3 Forming and Collection	4.53

Compliance with these limits shall limit the NOx emissions increase of the modification described in CP 177-5873-00006, issued April 22, 1999 to less than forty (40) tons per year.

**D.3.3 Particulate Limitations Except Lake County [326 IAC 6.5-10-11]**

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Pursuant to 326 IAC 6.5-10-11, the particulate matter (PM) emissions from each Forming and Collection Module shall comply with the following limitations:

Facility	PM Emission Limitations	
	tons/yr	gr/dscf
Line 2 Forming and Collection	58.3	0.02
Line 3 Forming and Collection	123.6	0.02

**D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

**Compliance Determination Requirements**

**D.3.5 Control Device Operating Conditions**

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In order to demonstrate compliance with Condition D.3.1, the water spray systems associated with the Line 2 and Line 3 Forming and Collection Modules shall be operated at all times when the forming sections are in operation.

**D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

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In order to demonstrate compliance with Conditions D.3.1 and D.3.2, the Permittee shall perform

PM/PM10, VOC and CO testing on one of the Forming and Collection Modules within one hundred and eighty (180) days after initial startup of the Electric Melter. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. 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.3.7 Visible Emissions Notations**

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- (a) Daily visible emission notations of the stack exhaust from the Line 2 and Line 3 Forming and Collection Modules shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

#### **D.3.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.3.7, the Permittee shall maintain records of daily visible emission notations of the stack exhaust from the Line 2 and Line 3 Forming and Collection Modules. 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) 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.3.9 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

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- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1, for Line 2 Forming and Collection Module and Line 3 Forming and Collection Module except as otherwise specified in 40 CFR Part 60, Subpart PPP.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports 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

D.3.10 New Source Performance Standards for Wool Fiberglass Insulation Manufacturing Plants:  
Requirements [40 CFR Part 60, Subpart PPP]

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Pursuant to 40 CFR Part 60, Subpart PPP, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart PPP for the Line 2 Forming and Collection Module and the Line 3 Forming and Collection Module as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES Subpart PPP—Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants

**§ 60.680 Applicability and designation of affected facility.**

(a) The affected facility to which the provisions of this subpart apply is each rotary spin wool fiberglass insulation manufacturing line.

(b) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after February 7, 1984, is subject to the requirements of this subpart.

**§ 60.681 Definitions.**

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

*Glass pull rate* means the mass of molten glass utilized in the manufacture of wool fiberglass insulation at a single manufacturing line in a specified time period.

*Manufacturing line* means the manufacturing equipment comprising the forming section, where molten glass is fiberized and a fiberglass mat is formed; the curing section, where the binder resin in the mat is thermally "set;" and the cooling section, where the mat is cooled.

*Rotary spin* means a process used to produce wool fiberglass insulation by forcing molten glass through numerous small orifices in the side wall of a spinner to form continuous glass fibers that are then broken into discrete lengths by high velocity air flow.

*Wool fiberglass insulation* means a thermal insulation material composed of glass fibers and made from glass produced or melted at the same facility where the manufacturing line is located.

**§ 60.682 Standard for particulate matter.**

On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.

**§ 60.685 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures 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 conduct performance tests while the product with the highest loss on ignition (LOI) expected to be produced by the affected facility is being manufactured.

(c) The owner or operator shall determine compliance with the particulate matter standard in §60.682 as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E=(C_t Q_{sd})/(P_{avg}K)$$

where:

E = emission rate of particulate matter, kg/Mg (lb/ton).

$C_t$  = concentration of particulate matter, g/dscm (gr/dscf).

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

$P_{avg}$  = average glass pull rate, Mg/hr (ton/hr).

K = 1,000 g/kg (7,000 gr/lb).

(2) Method 5E shall be used to determine the particulate matter concentration ( $C_t$ ) and the volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. The sampling time and sample volume shall be at least 120 minutes and 2.55 dscm (90.1 dscf).

(3) The average glass pull rate ( $P_{avg}$ ) for the manufacturing line shall be the arithmetic average of three glass pull rate ( $P_i$ ) determinations taken at intervals of at least 30 minutes during each run.

The individual glass pull rates ( $P_i$ ) shall be computed using the following equation:

$$P_i=K' L_s W_m M [1.0-(LOI/100)]$$

where:

$P_i$  = glass pull rate at interval "i", Mg/hr (ton/hr).

$L_s$  = line speed, m/min (ft/min).

$W_m$  = trimmed mat width, m (ft).

M = mat gram weight, g/m<sup>2</sup> (lb/ft<sup>2</sup>).

LOI = loss on ignition, weight percent.

$K'$  = conversion factor,  $6 \times 10^{-5}$  (min-Mg)/(hr-g) [ $3 \times 10^{-2}$  (min-ton)/(hr-lb)].

(i) ASTM D2584-68 (Reapproved 1985) or 94 (incorporated by reference—see §60.17), shall be used to determine the LOI for each run.

(ii) Line speed ( $L_s$ ), trimmed mat width ( $W_m$ ), and mat gram weight (M) shall be determined for each run from the process information or from direct measurements.

(d) To comply with §60.684(d), the owner or operator shall record measurements as required in §60.684 (a) and (b) using the monitoring devices in §60.683 (a) and (b) during the particulate matter runs.

[54 FR 6680, Feb. 14, 1989, as amended at 65 FR 61778, Oct. 17, 2000]

## SECTION D.4 FACILITY CONDITIONS

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

(d) Shredding and Packaging Facilities:

- (1) One (1) Line 2 shredding process for unbonded product, installed in 1994, with a maximum capacity of 9,450 pounds per hour. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S85, S86 and S87;
- (2) One (1) Line 2 packaging area for unbonded product, installed in 1994 and modified in 2006. The airstream is separated from the unbonded shredded product via a rotary condenser. Fiberglass collected in the rotary condenser is deposited in the packaging hopper and subsequently packaged for sale using a bagging system. The particulate emissions in the rotary condenser airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S85, S86 and S87. The total maximum capacity of Line 2 and Line 3 packaging areas is 27,540 pounds per hour;
- (3) One (1) Line 3 shredding process for unbonded product, installed in 1993, with a maximum capacity of 8,100 pounds per hour. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S12, S13 and S14; and
- (4) One (1) Line 3 packaging area for unbonded product, installed in 1993 and modified in 2006. The airstream is separated from the unbonded shredded product via a rotary condenser. Fiber glass collected in the rotary condenser is deposited in the packaging hopper and subsequently packaged for sale using a bagging system. The particulate matter emissions in the rotary condenser airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S12, S13 and S14. The total maximum capacity of Line 2 and Line 3 packaging areas is 27,540 pounds per hour.

(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 PSD Minor Modification Limitations [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable to the modification completed pursuant to SSM 177-22008-00006:

- (a) The PM10 emissions from the L2 Shredding Process and L2 Packaging Area shall not exceed 0.9 pounds per hour, total.
- (b) The PM10 emissions from the L3 Shredding Process and L3 Packaging Area shall not exceed 0.9 pounds per hour, total.

Compliance with these limits and the limits in Conditions D.1.3, D.2.1, and D.5.2 render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

#### D.4.2 Particulate Matter [336 IAC 6.5-1-2]

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Pursuant to 326 IAC 6.5-1-2, the allowable PM emission rates for each of the shredding and packaging facilities listed in this section shall not contain particulate matter in excess of 0.03 grain per dry standard cubic foot (dscf).

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

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

### Compliance Determination Requirements

#### D.4.4 Particulate Matter

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- (a) In order to comply with Conditions D.4.1 and D.4.2 the baghouses for PM control shall be in operation at all times the associated shredding and packaging facilities are in operation.
- (b) 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.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

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In order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM/PM10, testing on one of the Shredding and Packaging within one hundred and eighty (180) days after initial startup of the Electric Melter. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

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

#### D.4.6 Visible Emissions Notations

---

- (a) Daily visible emission notations of the shredding and packaging area baghouse systems stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.4.7 Parametric Monitoring

---

The Permittee shall record the pressure drop across the baghouses used in conjunction with the

shredding and packaging process, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouses are outside the normal range of 1.0 and 8.0 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.4.8 Broken or Failed Bag Detection

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- (a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

#### D.4.9 Record Keeping Requirements

---

- (a) To document compliance with Condition D.4.6, the Permittee shall maintain records of daily visible emission notations of the stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.4.7, the Permittee shall maintain daily records of the pressure drop during normal operation. 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 (e.g. the process did not operate that day).
- (c) These records shall be maintained in accordance with Section C - General Record Keeping Requirements.

## SECTION D.5 FACILITY OPERATION CONDITIONS

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

- (e) One (1) natural gas-fired boiler, identified as B-2, installed in 1961, with a rated capacity of 25 MMBtu per hour. The airstream from the boiler is exhausted to stack S4.

#### Insignificant Activities

- (a) One (1) melter dust recycling system, installed in 1961 and modified in 1999 and 2006, and exhausted to stack S34 [326 IAC 2-2] [326 IAC 6.5-10-11].
- (b) One (1) cold end housekeeping system, installed in 1988, with a total production capacity of 17,550 pounds per hour. The particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted indoors to general ventilation [326 IAC 2-2] [326 IAC 6.5-10-11].

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

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

#### D.5.1 PSD Modification Limitations [326 IAC 2-2-3]

- (a) Pursuant to CP 177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3 (BACT), the ancillary equipment shall comply with the following particulate matter limitations:
- (1) The particulate emissions from stack S34 from the melter dust recycling system shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;
  - (2) The cold end housekeeping system shall be equipped with a baghouse system and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and
- (b) Pursuant to CP 177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3 (BACT), the ancillary equipment shall comply with the following limitations:

Facility	Limitation PM/PM10 (lbs/hr)
Melter Dust Recycling System	0.19
Cold End Housekeeping System	0.51

#### D.5.2 PSD Minor Modification Limitations [326 IAC 2-2]

Pursuant to SSM 177-22008-00006, issued August 10, 2006, the PM10 emissions from the Melter Dust Recycle System shall not exceed 0.001 pounds per hour.

Compliance with this limit in combination with the limits in Conditions D.1.3, D.2.1, and D.4.1 will limit the PM10 emissions to less than fifteen (15) tons per year and will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification completed pursuant to

SSM 177-22008-00006 issued August 10, 2006.

**D.5.3 Particulate Emission Limitations [326 IAC 6.5]**

---

- (a) Pursuant to 326 IAC 6.5-1-2(a) (Particulate emission limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner) the allowable PM emission rates for each of the ancillary equipment facilities listed in this section shall not contain particulate matter in excess of 0.03 grain per dry standard cubic foot (dscf).
- (b) Pursuant to 326 IAC 6.5-10-11, the natural gas-fired boiler shall not exceed 1.5 tons of PM per year and 0.0137 pounds of PM per million Btu.

**D.5.4 Sulfur Dioxide Emission Limitations [326 IAC 7-4-4]**

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Pursuant to 326 IAC 7-4-4, (Wayne County Sulfur Dioxide Emission Limitations) the allowable sulfur dioxide emission rate for the natural gas-fired boiler shall not exceed 1.6 pounds per MMBtu/hr.

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

---

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the ancillary equipment and the cold end housekeeping system baghouse.

**Compliance Determination Requirements**

**D.5.6 Particulate Matter**

---

- (a) In order to comply with Conditions D.5.1(a), (b), and D.5.3, the baghouse for PM control shall be in operation at all times the cold end housekeeping system is in operation.
- (b) 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.

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

**D.5.7 Broken or Failed Bag Detection**

---

- (a) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

## SECTION D.6

## FACILITY OPERATION CONDITIONS

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

- (j) Two (2) degreasing operations, constructed in 2006, that do not exceed 145 gallons per 12 months and are not subject to 326 IAC 20-6 [326 IAC 8-3-2][326 IAC 8-3-5].

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

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

#### D.6.1 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.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee 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 owner or operator 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.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Johns Manville International, Inc.  
Source Address: 814 Richmond Ave, Richmond, Indiana 47374  
Mailing Address: 814 Richmond Ave, Richmond, IN 47374  
Part 70 Permit No.: T177-22598-00006

**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 61-64 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Johns Manville International, Inc.  
Source Address: 814 Richmond Ave, Richmond, Indiana 47374  
Mailing Address: 814 Richmond Ave, Richmond, IN 47374  
Part 70 Permit No.: T177-22598-00006

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , 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  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Johns Manville International, Inc.  
Source Address: 814 Richmond Ave, Richmond, Indiana 47374  
Mailing Address: 814 Richmond Ave, Richmond, IN 47374  
Part 70 Permit No.: T177-22598-00006

Natural Gas Only  
 Alternate Fuel burned  
From: \_\_\_\_\_ To: \_\_\_\_\_

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION  
 PART 70 OPERATING PERMIT  
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Johns Manville International, Inc.  
 Source Address: 814 Richmond Ave, Richmond, Indiana 47374  
 Mailing Address: 814 Richmond Ave, Richmond, IN 47374  
 Part 70 Permit No.: T177-22598-00006

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

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

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  
to a Part 70 Operating Permit Renewal**

**Source Background and Description**

Source Name:	Johns Manville International, Inc.
Source Location:	814 Richmond Ave Richmond, Indiana 47374
County:	Wayne
SIC Code:	3296
Operation Permit No.:	177-22598-00006
Permit Reviewer:	ERG/BL

On October 17, 2007, the Office of Air Quality (OAQ) had a notice published in The Palladium Item, in Richmond, Indiana, stating that Johns Manville International, Inc. had applied for a Permit Renewal to their Part 70 Operating Permit. 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. No public comments were made on the proposed permit during the 30 day public comment period.

Upon further review, IDEM, OAQ has decided to make the following revisions to the permit. New language is in **bold** while deleted language is in ~~strikeout~~. The Table of Contents has been updated as necessary.

1. The record keeping requirements in paragraph (b) of Condition D.1.9 incorrectly cite the visible emissions requirement, Condition D.1.6. This reference has been corrected.

**D.1.9 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.2 and D.1.6, the Permittee shall maintain records of daily visible emission notations required by Condition D.1.6. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition ~~D.1.6~~**D.1.7**, the Permittee shall maintain weekly records of the pressure drop during normal operations. 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 (e.g. the process did not operate that day).

...

2. The record keeping requirements in paragraphs (a) and (b) of Condition D.4.9 incorrectly cite the testing and visible emissions requirements, Conditions D.4.5 and D.4.6. This reference has been corrected.

**D.4.9 Record Keeping Requirements**

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- (a) To document compliance with Condition ~~D.4.5~~**D.4.6**, the Permittee shall maintain records of daily visible emission notations of the stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition ~~D.4.6~~**D.4.7**, the Permittee shall maintain daily records of the pressure drop during normal operation. 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 (e.g. the process did not operate that day).

...

**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:	Johns Manville International, Inc.
Source Location:	814 Richmond Ave., Richmond, IN 47374
County:	Wayne
SIC Code:	3296
Permit Renewal No.:	T177-22598-00006
Permit Reviewer:	ERG/BL

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Johns Manville International, Inc. relating to the operation of following emission units and pollution control devices.

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

**Permitted Emission Units and Pollution Control Equipment**

- (a) Raw Material Handling, Storage and Batching Equipment for Lines 2 and 3:
- (1) One (1) Rail car Receiving station; with a maximum capacity of 40.5 tons per hour, installed in 1967, and exhausting to stack S165. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car and a baghouse;
  - (2) Eight (8) Raw Material Silos, installed in 1967. Raw materials are loaded into the batch silos and vented to fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28. The silo capacities are as follows: Silo #1 - 152 tons, Silo #2 - 23 tons, Silo #3 - 134 tons, Silo #4 - 51.8, Silo #5 - 106.7, Silo #6 - 54.6, Silo #7 - 101.3, and Silo #8 - 149.9.
  - (3) Two (2) day bins; identified as Day Bin 1 and Day Bin 2; constructed in 2006; each with a maximum storage capacity of 57.5 tons; emissions controlled by baghouses (BH167 and BH168); exhausting to stacks S167 and S168. Product from the mixer is transferred to the day bins using an enclosed conveyor system.
  - (4) One (1) Mixer; constructed in 2006; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a sock filter; exhausting indoors to general ventilation. Raw materials from the storage silos are weighed and transferred to the mixer.
  - (5) One (1) Batch Transfer System; constructed in 2006; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a baghouse; exhausting indoors to general ventilation. Processed materials from the mixer are transferred to the day bins via the batch delivery/bucket elevator system.
  - (6) One (1) Weigh Scale; constructed in 1967; a maximum capacity of 20,125 pounds of raw materials per hour; emissions controlled by a sock filter; exhausting indoors

to general ventilation. Raw materials from the storage silos are weighed and transferred to the mixer.

- (b) One (1) Electric Melter; constructed in 2006; a maximum production rate of 20,125 pounds of molten glass per hour; emissions controlled by a baghouse and exhausting to stack S166. The molten glass flows from the melter to the Line 2 and Line 3 fiber forming/collection modules.
- (c) Forming Facilities:
  - (1) One (1) Line 2 Forming and Collection Module; installed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 9,450 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S2. Under 40 CFR Part 60, Subpart PPP, this facility is considered a spin wool fiberglass insulation manufacturing line. (Formerly referred to as the Line 2 forming chamber for unbonded product)
  - (2) One (1) Line 3 Forming and Collection Module; installed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 8,100 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S3. Under 40 CFR Part 60, Subpart PPP, this facility is considered a spin wool fiberglass insulation manufacturing line. (Formerly referred to as the Line 3 forming chamber for unbonded product)
- (d) Shredding and Packaging Facilities:
  - (1) One (1) Line 2 shredding process for unbonded product, installed in 1994, with a maximum capacity of 9,450 pounds per hour. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S85, S86 and S87;
  - (2) One (1) Line 2 packaging area for unbonded product, installed in 1994 and modified in 2006. The airstream is separated from the unbonded shredded product via a rotary condenser. Fiberglass collected in the rotary condenser is deposited in the packaging hopper and subsequently packaged for sale using a bagging system. The particulate emissions in the rotary condenser airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S85, S86 and S87. The total maximum capacity of Line 2 and Line 3 packaging areas is 27,540 pounds per hour;
  - (3) One (1) Line 3 shredding process for unbonded product, installed in 1993, with a maximum capacity of 8,100 pounds per hour. The shredded fiber is pneumatically

transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S12, S13 and S14; and

- (4) One (1) Line 3 packaging area for unbonded product, installed in 1993 and modified in 2006. The airstream is separated from the unbonded shredded product via a rotary condenser. Fiber glass collected in the rotary condenser is deposited in the packaging hopper and subsequently packaged for sale using a bagging system. The particulate matter emissions in the rotary condenser airstream are controlled by a baghouse system before the airstream is exhausted to Stacks S12, S13 and S14. The total maximum capacity of Line 2 and Line 3 packaging areas is 27,540 pounds per hour.
- (e) One (1) natural gas-fired boiler, identified as B-2, installed in 1961, with a rated capacity of 25 MMBtu per hour. The airstream from the boiler is exhausted to stack S4.

### **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) One (1) melter dust recycling system, installed in 1961 and modified in 1999 and 2006, and exhausted to stack S34 [326 IAC 2-2] [326 IAC 6.5-10-11].
- (b) One (1) cold end housekeeping system, installed in 1988, with a total production capacity of 17,550 pounds per hour. The particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted indoors to general ventilation [326 IAC 2-2] [326 IAC 6.5-10-11].
- (c) Two (2) degreasing operations, constructed in 2006, that do not exceed 145 gallons per 12 months and are not subject to 326 IAC 20-6 [326 IAC 8-3-2][326 IAC 8-3-5].
- (d) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (e) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
- (f) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenth (0.5) percent sulfur by weight.
- (g) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (h) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (i) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

- (j) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (k) Refractory storage not requiring air pollution control equipment.
- (l) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (m) Cleaners and solvents characterized as follows: (1) having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F); or (2) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (n) Closed loop heating and cooling systems.
- (o) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (p) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (q) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.
- (r) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (s) Forced and induced draft cooling tower system not regulated under a NESHAP.
- (t) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (u) Process vessel degassing and cleaning to prepare for internal repairs.
- (v) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
- (w) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (x) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (y) Five (5) standby diesel generators including: three (3) rated at 155 hp each and one (1) rated as 174 hp, exhausting to stacks S148, S149, S150, and S161, respectively. One (1) 63.2 hp diesel engine used to power the emergency fire pump, which exhausts to stack S160.
- (z) Stationary fire pumps.
- (aa) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (bb) Activities with emissions equal to or less than the following thresholds: PM = 5 tpy; PM10 = 5 tpy; SO<sub>2</sub> = 10 tpy or 25 lb/day; NO<sub>x</sub> = 10 tpy; CO = 25 tpy or 25 lb/day; Pb = 0.2 tpy or

3.29 lb/day; single HAP = 1 tpy; combination of HAPs = 2.5 tpy; and VOC = 10 tpy including:

- (1) Binder Tank (EPN S45),
- (2) Maintenance Welding,
- (3) Propane Expander (EPN S68),
- (4) Propane Vaporizer (EPN S75),
- (5) Stand by Generators,
- (6) 7,000 gallon Dedusting storage tank,
- (7) 300 gallon Used Oil storage tank,
- (8) Four (4) 600 gallon Emulsion storage tanks,
- (9) 300 gallon Gasoline Storage Tank (T-001),
- (10) 300 gallon Diesel Storage Tank (T-002),
- (11) 300 gallon Diesel Storage Tank (T-003), and
- (12) 300 gallon Kerosene Storage Tank (T-004).

## History

On February 6, 2006, Johns Manville International, Inc. submitted applications to the OAQ requesting to renew its operating permit. Johns Manville International, Inc. was issued a Part 70 Operating Permit on October 4, 2001.

## Existing Approvals

Since the issuance of the Part 70 Operating Permit T177-7720-00006 on October 4, 2001, the source has constructed or has been operating under the following approvals as well:

- (a) Administrative Amendment 177-14315-00006, issued on November 30, 2001;
- (b) Administrative Amendment 177-15463-00006, issued on March 11, 2002;
- (c) Minor Source Modification 177-15950-00006, issued on September 16, 2002;
- (d) Significant Permit Modification 177-16463-00006, issued on November 15, 2002;
- (e) Review Request 177-18566-00006, issued on March 18, 2004;
- (f) Review Request 177-19135-00006, issued on June 10, 2004;
- (g) Significant Source Modification 177-22008-00006, issued on August 10, 2006; and
- (h) Significant Permit Modification 177-22666-00006, issued on September 1, 2006.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 Operating Permit Renewal:

- (a) Condition D.3.1(d) in the construction permit CP177-5873-00006, issued April 22, 1999, limited the NOx emissions from the Lines 2 and 3 Forming Process. These limits have been revised.

Reason for the revision: The NOx limits were designed to ensure that 326 IAC 2-2 (Prevention of Significant Deterioration) does not apply. Due to the removal of the Line 3 Curing Process, the Line 3 Cooling Process, the Line 6 Forming Process, and the Line 6 Curing Process, the hourly NOx emission limits have been redistributed to the remaining equipment.

- (b) Condition D.3.1(e) in the construction permit CP177-5873-00006, issued April 22, 1999, limited the HAP emissions from the manufacturing lines 2, 3, and 6 to make 326 IAC 2-4.1 not applicable. These limits have been revised.

Reason for the revision: Following the modifications documented in SPM 177-22666-00006 issued September 1, 2006, the Modules can no longer produce bonded product and the only source of HAP emissions is the Electric Melter and the boilers. The total PTE of HAP from the source is now significantly less than 1.00 ton of any single HAP or of a combination of HAP per year. The HAP limit has been removed from the permit because it is now unnecessary.

- (c) Conditions D.5.1(a)(3), D.5.1(b) and D.5.1(c) in the construction permit CP177-5873-00006, issued April 22, 1999, limited the PM/PM10, VOC, CO, NOx, and SO<sub>2</sub> emissions from the natural gas-fired boiler (B-2). These limits have been removed.

Reason not incorporated: The boiler should not have been limited because it was built in 1961 and has not been modified since that date. The boiler did stop burning fuel oil in 1999, but this led to a reduction in emissions. Therefore, no limit should have been required. The uncontrolled PM/PM10, VOC, CO, SO<sub>2</sub> and NOx emissions for this boiler are all less than the significant level thresholds under PSD.

- (d) Conditions D.5.1(b) and D.5.1(c) in the construction permit CP177-5873-00006, issued April 22, 1999, limited the PM/PM10, VOC, CO, SO<sub>2</sub> and NOx emissions from the Melter Dust Recycle System (formerly the EP Dust Recycling System) and the Cold End Housekeeping System. The VOC and CO limits have been removed.

Reason not incorporated: Neither the Melter Dust Recycle System or the Cold End Housekeeping System produce VOC, CO, SO<sub>2</sub>, or NOx. Therefore, no limit should have been required.

- (d) Condition D.2.4 in the SSM 177-22008-00006, issued August 10, 2006 limited the production rate of the Electric Melter to less than 17,500 pounds of glass per hour.

Reason not incorporated: The PSD minor limits for PM10, VOC, and CO were necessary to make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification. The limits are in terms of pounds per hour. Therefore, it is not necessary to restrict production.

- (e) Condition D.4.1(a) in the SSM 177-22008-00006, issued August 10, 2006 limited the PM and PM10 emissions from the Lines 2 and 3 Shredding and Packaging. The PSD minor limits for PM and PM10 are necessary to make 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification. However the limits in Condition D.4.1(a) and D.4.1(b) are redundant and have been removed. IDEM has revised the limit as follows.

#### D.4.1 Particulate Matter Emission Limitations

- (a) Pursuant to CP 177-5873-00006, issued April 22, 1999, 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), and as revised by SSM 177-22008-00006, each shredding and packaging area shall comply with the following limitations:

Facility	Facility Stack	PM/PM10 Emission Limitations (lb/hr)
Line 2 Shredding and Packaging	S85, S86 and S87	1.86
Line 3 Shredding and Packaging	S12, S13 and S14	3.09

PM/PM10 means that the PM limit and the PM10 limit are the same and shall be measured as the sum of the filterable and condensable fractions.

- (b) In order to render the requirements of 326 IAC 2-2 not applicable to the modification completed pursuant to SSM 177-22008-00006:
- (1) The PM10 emissions from the L2 Shredding Process and L2 Packaging Area shall not exceed 0.9 pounds per hour, total.
  - (2) The PM10 emissions from the L3 Shredding Process and L3 Packaging Area shall not exceed 0.9 pounds per hour, total.
- (f) Condition D.1.2(b)(8) in the SPM 177-22666-00006, issued September 1, 2006, required that following startup of the Electric Melter the Permittee shall permanently remove the existing mixer, existing bucket elevator, Day Bin 2N, Day Bin 3E, and Day Bin 3W.
- Condition D.2.4(e) required that the production rate of the Electric Melter shall not exceed 8,750 pounds of glass per hour (on a 4-hr average basis) until the Line 2 Melt Furnace and Line 3 Melt Furnace have been permanently shut down.

Line 2 and Line 3 Melt Furnaces, the Day Bins, the mixer, and bucket elevator have been removed. Therefore, the PSD minor limits for PM10, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub> limits have been removed.

#### Enforcement Issue

Title V renewal application should have been submitted nine (9) months prior to the expiration of the source's existing permit. IDEM is reviewing this matter and will take appropriate action.

#### Emission Calculations

See Appendix A of this document for detailed emission calculations (Appendix A, pages 1 through 14).

#### County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM <sub>10</sub>	Attainment
PM <sub>2.5</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>x</sub>	Attainment
8-hour Ozone	Attainment
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) Wayne County has been classified as unclassifiable or attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM<sub>2.5</sub> emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM<sub>2.5</sub> emissions, it has directed states to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) emissions and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for the ozone standard. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Wayne County has been designated as attainment or unclassifiable for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section.
- (c) Wayne County has been classified as attainment or unclassifiable in Indiana for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) 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.
- (e) Fugitive Emissions  
 Since this type of operation is in one of the twenty-eight (28) listed source categories (Glass Fiber Processing Plant) under 326 IAC 2-2 or 326 IAC 2-7, fugitive emissions are counted toward the determination of PSD and Part 70 applicability.

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	1,284
PM <sub>10</sub>	1,285
SO <sub>2</sub>	9.77
VOC	89.8
CO	150
NO <sub>x</sub>	16.9

HAPs	tons/year
Hydrogen Fluoride	0.23
Total	0.23

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10 and CO are greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

### Actual Emissions

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

Pollutant	Actual Emissions (tons/year)
PM	Not reported
PM10	72
SO <sub>2</sub>	21
VOC	46
CO	89
NO <sub>x</sub>	54
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 assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAP
Railcar Receiving	0.63 <sup>(1)</sup>	0.63 <sup>(1)</sup>	-	-	-	-	-
Raw Material Batch Silos #1 - #8	0.26 <sup>(1)</sup>	0.26 <sup>(1)</sup>	-	-	-	-	-
Melter daybin #1 and #2	0.18 <sup>(1)</sup>	0.18 <sup>(1)</sup>	-	-	-	-	-
Mixer	4.16x10 <sup>-3(1)</sup>	1.39x10 <sup>-3(1)</sup>	-	-	-	-	-
Batch Transfer System	0.35 <sup>(1)</sup>	0.35 <sup>(1)</sup>	-	-	-	-	-
Weigh Scale	4.06 x10 <sup>-3(1)</sup>	4.06 x10 <sup>-3(1)</sup>	-	-	-	-	-
Electric Melter	2.15 <sup>(2)</sup>	2.15 <sup>(2)</sup>	0.07	4.82 <sup>(2)</sup>	3.64 <sup>(2)</sup>	1.66	Hydrofluoric acid: 0.03
Line 2 Forming and Collection Module	58.3 <sup>(3)</sup>	58.3 <sup>(3)</sup>	4.82	29.7 <sup>(4)</sup>	68.3 <sup>(2)</sup>	19.8 <sup>(5)</sup>	
Line 3 Forming and Collection Module	123.6 <sup>(3)</sup>	123.6 <sup>(3)</sup>	4.82	29.7 <sup>(4)</sup>	68.3 <sup>(2)</sup>	19.8 <sup>(5)</sup>	-
Line 2 Shredding and Packaging	8.15 <sup>(4)</sup>	8.15 <sup>(4)</sup>	-	-	-	-	-
Line 3 Shredding and Packaging	13.5 <sup>(4)</sup>	13.5 <sup>(4)</sup>	-	-	-	-	-
Melter Duster Recycle System	0.83 <sup>(6)</sup>	0.83 <sup>(6)</sup>	-	-	-	-	-
Cold End Housekeeping System	2.23 <sup>(6)</sup>	2.23 <sup>(6)</sup>	-	-	-	-	-
Natural Gas-fired Boiler (B-2)	0.20 <sup>(7)</sup>	0.82 <sup>(7)</sup>	0.06	0.59	9.02	10.7	Combination: 0.20
<b>Total</b>	210	211	less than 100	less than 100	149	less than 100	Single: less than 10 Combination: less than 25
<b>PSD Major Source Threshold</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	-

Pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 6.5-10-11.

(1) Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the Mixer, Batch Transfer System, Day Bin 1 and Day Bin 2, Melter Dust Recycle System, shall not exceed 0.03 grains per dry standard cubic foot.

(2) Pursuant to SSM 177-22008-00006, issued August 10, 2006, in order to render the requirements of 326 IAC 2-2 not applicable.

(3) PM/PM10 emissions from these units (line 2 and 3 forming and collection modules) are specifically limited to 58.3 and 123.6, respectively, pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 6.5-10-11.

(4) Pursuant to CP-177-5873-00006, issued April 22, 1999, 326 IAC 2-2-3(a)(3) and as revised by SSM 177-22008-00006.

(5) These units are specifically limited to 19.8 NOx tons per year, pursuant to CP-177-5873-00006, issued April 22, 1999 and revised by T177-22598-00006, in order to render the requirements of 326 IAC 2-2 not applicable.

(6) Pursuant to CP-177-5873-00006, issued April 22, 1999, in order to render the requirements of 326 IAC 2-2 not applicable.

(7) Although this boiler is specifically limited to 1.49 tons of PM/PM10 per year, pursuant to 326 IAC 6.5-10-11, AP-42 emission factors shows that it's potential to emit PM/PM10 are 0.20 and 0.82 ton per year, respectively.

- (a) This existing stationary source is major for PSD because the emissions of at least one attainment criteria pollutant are greater than one hundred (>100) tons per year, and it is one of the twenty-eight (28) listed source categories.

- (b) **Fugitive Emissions**  
 Since this type of operation is in one of the twenty-eight (28) listed source categories (Glass Fiber Processing Plant) under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

**Federal Rule Applicability**

The following federal rules are applicable to the source:

- (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 involved:

<b>Emission Unit / Pollutant</b>	<b>Control Device Used</b>	<b>Emission Limitation (Y/N)</b>	<b>Uncontrolled PTE (tons/year)</b>	<b>Controlled PTE (tons/year)</b>	<b>Major Source Threshold (tons/year)</b>	<b>CAM Applicable (Y/N)</b>	<b>Large Unit (Y/N)</b>
Line 2 Forming & Collection - PM10	a	Y	greater than 100	45.0	100	Y	N
Line 3 Forming & Collection - PM10	a	Y	greater than 100	45.0	100	Y	N
Line 2 Shredding & Packaging - PM10	baghouse	Y	greater than 100	8.15	100	Y	N
Line 3 Shredding & Packaging - PM10	baghouse	Y	greater than 100	13.5	100	Y	N
Line 2 Forming & Collection - PM	a	Y	greater than 100	45.0	100	Y	N
Line 3 Forming & Collection - PM	a	Y	greater than 100	45.0	100	Y	N
Line 2 Shredding & Packaging - PM	baghouse	Y	greater than 100	8.15	100	Y	N
Line 3 Shredding & Packaging - PM	baghouse	Y	greater than 100	13.5	100	Y	N

a - fog box / wet spray collection system

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Line 2 and 3 Forming and Collection Processes, and Lines 2 and 3 Shredding and Packaging for PM and PM10. A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

The CAM plan for this unit include the confirmation that control devices (wet sprays) are operated in accordance with manufacturers recommendations. This requirement is detailed in the "Compliance Requirements" section of this TSD.

- (b) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (40 CFR 60, Subpart K) (326 IAC 12) are not included in this permit for the gasoline fuel transfer and dispensing operations, the petroleum fuel transfer and dispensing operations, or the 300 gallon storage tanks for gasoline, diesel, and kerosene. None of these tanks have storage capacity greater than 151,412 liters (40,000 gallons).
- (c) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (40 CFR 60, Subpart Ka) (326 IAC 12) are not included in this permit for the gasoline fuel transfer and dispensing operations, the petroleum fuel transfer and dispensing operations, or the 300 gallon storage tanks for gasoline, diesel, and kerosene. None of these tanks have storage capacity greater than 151,412 liters (40,000 gallons).
- (d) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, (40 CFR 60, Subpart Kb), are not included in this permit for the for the following storage tanks: Gasoline Tanks, Diesel Tanks, Kerosene Tank, Petroleum Tank, Binder Tank, Dedusting Tank, Used Oil Tank, and Emulsion Tanks. None of these volatile organic liquid storage vessels have a capacity greater than 75,000 liters (19,813 gallons).
- (e) The requirements of the New Source Performance Standard for Glass Manufacturing Plants (40 CFR 60, Subpart CC) (326 IAC 12) are not included in this permit. The gas-fired glass melting furnaces on lines 2 and 3 were removed following permit 177-22666-00006 issuance on September 1, 2006.

The requirements of 40 CFR 60, Subpart CC are not included in this permit for the electric melter installed in 2006. Pursuant to Section 60.290(c) the Supart does not apply to electric melters.

- (f) The requirements of New Source Performance Standard for Small Industrial/Commercial/Institutional Steam Generating Units (40 CFR 60, Subpart Dc) (326 IAC 12) are not included in this permit. Boiler S4 was constructed in 1961.
- (g) The requirements of New Source Performance Standard for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60 Subpart PPP) (326 IAC 12) are included for wool fiberglass insulation manufacturing lines which are comprised of forming sections, curing sections, and cooling sections.

Pursuant to 40 CFR 60.680, each rotary spin wool fiberglass insulation manufacturing line constructed, reconstructed or modified after February 7, 1984 is an affected facility subject to the requirements of 40 CFR Part 60, Subpart PPP. The specific facilities subject to this rule include the following:

- (1) One (1) Line 2 Forming and Collection Module; constructed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 8,750 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section is 20 MMBtu/hr. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted

to stack S2; (Formerly referred to as the Line 2 forming chamber for unbonded product)

- (2) One (1) Line 3 Forming and Collection Module; constructed in 1961 and modified in 2000 and 2006; consisting of a rotary spinner and collection conveyor; with a maximum unbonded glass production rate of 8,750 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section is 20 MMBtu/hr. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to stack S3; (Formerly referred to as the Line 3 forming chamber for unbonded product)

The Line 2 and Line 3 Forming and Collection Modules are rotary spin wool fiberglass insulation manufacturing lines and have been modified after February 7, 1984.

Note that the monitoring, record keeping and reporting requirements specified in 40 CFR 60.683 through 40 CFR 60.684 apply only if the affected facility uses a wet scrubbing control device or wet electrostatic precipitator control device. The affected facilities at this source do not use either type of control device.

Nonapplicable portions of the NSPS are not included in the permit. The affected facilities are subject to the following sections of 40 CFR Part 60, Subpart PPP:

- (1) 40 CFR 60.680
- (2) 40 CFR 60.681
- (3) 40 CFR 60.682
- (4) 40 CFR 60.685

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12, apply to each affected facility described in 40 CFR 60.680 except when otherwise specified in 40 CFR Part 60, Subpart PPP.

- (h) The provisions of National Emission Standards for Hazardous Air Pollutants, 40 CFR 63 Subpart NNN, National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing (326 IAC 20) are not included in this permit. Pursuant to 40 CFR 63.1380(a), the standard applies to each wool fiberglass manufacturing facility that is located at a major source of HAPs. This source is not a major source of HAPs, as defined in 40 CFR 63.2.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ (326 IAC 20), are not included in the permit for the (5) standby diesel generators. Pursuant to 40 CFR 63.6590(b)(3), there are no applicable requirements from 40 CFR 63, Subpart ZZZZ and 40 CFR 63, Subpart A for existing compression ignition (CI) stationary RICE. This source is not a major source of HAPs, as defined in 40 CFR 63.2.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants for Process Cooling Towers, 40 CFR 63, Subpart Q (326 IAC 20), are not included in the permit for the cooling tower system. This source is not a major source as defined in 40 CFR 63.401.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning, 40 CFR 63, Subpart T (326 IAC 20), are not included in

the permit for the degreasing operation because the degreasing operations do not use halogenated solvents and this source is not a major source of HAP emissions.

**State Rule Applicability – Entire Source**

**326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

This source is one of the 28 source categories (glass fiber processing plant) with a PSD applicability threshold of 100 tons per year. The potential to emit at this source is greater than 100 tons per year. The source was first constructed, prior to PSD applicability. Therefore, no PSD review occurred at the original construction. Line 2 and Line 3 Forming and Collection Modules were constructed in 1961. The potential to emit PM10 of these sources is greater than 100 tons per year. Therefore, the source has been major for PSD since the inception of the PSD rules.

Pursuant to CP-177-5873-00006, issued April 22, 1999, the source increased the production capacities of the existing manufacturing lines. As a result, the PM, PM10, VOC and CO emissions were greater than PSD significant thresholds and required PSD review. BACT was performed for VOC, PM, PM10, and CO for each modified facility of the source which includes the forming, curing and cooling processes for Lines 2, 3, and 6. Limits below the significance thresholds were taken for NOx and SO<sub>2</sub> to ensure that PSD did not apply. The BACT and PSD minor modification limits are as follows:

(a) Pursuant to CP-177-5873-00006, issued April 22, 1999; and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), from the raw material handling, storage and batching facilities for lines 2 and 3 shall comply with the following limitations:

- (1) The Railcar Receiving Station shall be equipped with a bootlift device or similar device and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; The baghouse ensures compliance with this limit.
- (2) The raw material conveyor system (which operates as part of the railcar receiving station) shall be enclosed and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9.
- (3) The raw material silos shall be equipped with fabric filters and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9.
- (4) The forming, curing, and cooling processes shall comply with the following limitations:

Facility	Pollutant Emission Limitations		
	PM/PM10 (lb/hr)	VOC (lbs/hr)	CO (lbs/hr)
Line 2 Forming and Collection	10.3	6.78	21.0
Line 3 Forming and Collection	10.3	6.78	21.0

- (5) The particulate emissions from stack S34 from the Melter Dust Recycle System (Formerly referred to as the EP recycling system) shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second

intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;

- (6) The cold end housekeeping system shall be equipped with a baghouse system and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and
- (7) The ancillary equipment shall also comply with the following limitations:

<b>Facility</b>	<b>Limitation PM/PM10 (lbs/hr)</b>
Melter Dust Recycle System	0.19
Cold End Housekeeping System	0.51

PM/PM10 means that the PM limit and the PM10 limit are the same and shall be measured as the sum of the filterable and condensable fractions.

- (b) Pursuant to CP-177-5873-00006, issued April 22, 1999 and revised by this Part 70 renewal permit, T177-22598-00006; in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable for NO<sub>x</sub> and SO<sub>2</sub> the source shall comply with the following limitations:

- (1) Each manufacturing line shall comply with the following limitations:

<b>Facility</b>	<b>Pollutant Emission Limitations, NO<sub>x</sub> (lbs/hr)</b>
Line 2 Forming and Collection	4.53
Line 3 Forming and Collection	4.53

Line 6 has been permanently shut down and the limits under CP-177-5873-00006 have been increased to compensate for removed equipment. The adjusted limits are below the PSD significant thresholds.

Construction of the natural gas-fired boiler commenced in 1961 prior to the PSD applicability date of August 7, 1977. The boiler unit was not modified after 1961. The PM/PM10, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub> limits established by the CP-177-5873-00006, issued April 22, 1999 have been removed.

The VOC, CO, NO<sub>x</sub> and SO<sub>2</sub> limits established by the CP-177-5873-00006, issued April 22, 1999 for the Melter Dust Recycle System and the Cold End Housekeeping System have been removed. Neither the facility produces VOC, CO, SO<sub>2</sub>, or NO<sub>x</sub>. Therefore, no limit should have been required.

- (c) In 2006, pursuant to SSM 177-22008-00006, issued on August 10, 2006, emission units (Mixer, batch transfer system, day bins, and the Electric Melter) were approved for construction and modification (Line 2 and Line 3 Forming and Collection Modules and the Melter Dust Recycle System). It should be noted that Line 6 has been permanently shut down, Line 2 and Line 3 Melters were demolished in 2006.

The total increase in potential to emit PM of the modification was less than 25 tons per

year. In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the modification completed pursuant to SSM 177-22008-00006 issued on August 10, 2006:

- (1) The PM10 emissions from the Day Bin 1 shall not exceed 0.01 pounds per hour.
- (2) The PM10 emissions from the Day Bin 2 shall not exceed 0.01 pounds per hour.
- (3) The PM10 emissions from the Mixer shall not exceed 0.005 pounds per hour.
- (4) The PM10 emissions from the Weigh Scale shall not exceed 0.005 pounds per hour.
- (5) The PM10 emissions from the Railcar Receiving Station shall not exceed 0.095 pounds per hour.
- (6) The PM10 emissions from the Raw Material Silos shall not exceed 0.04 pounds per hour, total.
- (7) The PM10 emissions from the Batch Transfer System shall not exceed 0.053 pounds per hour.
- (8) The PM10 emissions from the Electric Melter shall not exceed 0.49 pounds per hour.
- (9) The PM10 emissions from the L2 Shredding Process and L2 Packaging Area shall not exceed 0.9 pounds per hour, total.
- (10) The PM10 emissions from the L3 Shredding Process and L3 Packaging Area shall not exceed 0.9 pounds per hour, total.
- (11) The PM10 emissions from the Melter Dust Recycle System shall not exceed 0.001 pounds per hour.
- (12) The CO emissions from the L2 Forming and Collection Module shall not exceed 15.6 pounds per hour.
- (13) The CO emissions from the L3 Forming and Collection Module shall not exceed 15.6 pounds per hour.
- (14) The CO emissions from the Electric Melter shall not exceed 0.83 pounds per hour.
- (15) The VOC emissions from the Electric Melter shall not exceed 1.1 pounds per hour.
- (16) Each packaging area shall comply with the following limitations:
  - (a) The PM10 emissions from the L2 Shredding Process and L2 Packaging Area shall not exceed 0.9 pounds per hour, total.
  - (b) The PM10 emissions from the L3 Shredding Process and L3 Packaging Area shall not exceed 0.9 pounds per hour, total.

326 IAC 1-5-2 (Emergency Reduction Plans)

The source submitted an Emergency Reduction Plan (ERP) on December 13, 1996.

#### 326 IAC 2-3 (Emission Offset)

This source is not subject to the requirements of 326 IAC 2-3 because it is located in Wayne County which is designated as an attainment area for all criteria pollutants.

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

This source is not subject to the requirements of 326 IAC 2-4.1 because it emits less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs.

The source's original Part 70 permit, T177-7720-00006 issued October 4, 2001, limited the HAP emissions from forming facilities (lines 2, 3, and 6) to render the requirements of 40 CFR Part 63, Subpart NNN not applicable. This limit was necessary because the Modules could produce bonded fiberglass product.

Following the modifications documented in SPM 177-22666-00006 issued September 1, 2006, the Modules can not produce bonded product and the only source of HAP emissions is the Electric Melter. Forming and collection modules (Line 2 and 3) shall not produce bonded fiberglass. The total PTE of HAP from the source is now significantly less than 1.00 ton of any single HAP or of a combination of HAP. The HAP limit has been removed from the permit because it is now unnecessary.

#### 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 emission statement certified pursuant to the requirements of 326 IAC 2-6. 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)

The source is located in Wayne County, which is not one of the areas listed in 326 IAC 5-1-1(c). Therefore, this source is subject to the provisions of 326 IAC 5-1-2(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 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 6.5-1 (Particulate Matter Limitations Except Lake County - General Provisions) and 326 IAC 6.5-10 (Wayne County)

Pursuant to T177-7720-000006, issued October 4, 2001, this source was subject to the requirements of 326 IAC 6-1-2 and 326 IAC 6-1-14. On September 1, 2005, 326 IAC 6-1 was repealed, 326 IAC 6-1-2 and 326 IAC 6-1-14 were replaced with 326 IAC 6.5-1-2 and 326 IAC 6.5-10, respectively.

Pursuant to 326 IAC 6.5-1-1(a), this source is subject to the requirements of 326 IAC 6.5-1 because it is located in Wayne County and has potential particulate emissions greater than one hundred (100) tons of per year.

Pursuant to 326 IAC 6.5-10-11 (Johns Manville Corporation), the particulate matter emissions from:

- (a) The natural gas-fired boiler, identified as B-2, shall not exceed 0.0137 lb/MMBtu heat input and 1.5 tons per year.
- (b) Line 3 Curing Oven shall not exceed 0.02 gr/dscf and 27.4 ton/yr.
- (c) The L2 Forming and Collection Module shall not exceed 0.02 gr/dscf and 58.3 ton/yr.
- (d) The L3 Forming and Collection Module shall not exceed 0.02 gr/dscf and 123.6 ton/yr.

The requirements of New Source Performance Standard for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60 Subpart PPP) (326 IAC 12) are included for the Line 2 and Line 3 Forming and Collection Modules. The limitations in 326 IAC 6.5-10-11 are more stringent than 40 CFR 60 Subpart PPP and therefore apply.

Pursuant to 326 IAC 6.5-1-1(a)(2), the particulate emissions from the Electric Melter, Mixer, Batch Transfer System, Melter Dust Recycle System, Day Bin 1, and Day Bin 2 shall not exceed 0.03 grains per dry standard cubic foot. These facilities are not specifically listed in 326 IAC 6.5-10-11.

**326 IAC 6-3-2 (Particulate Matter Emissions Limitations From Process Operations)**

Pursuant to 326 IAC 6-3-1(c), this rule shall not apply if a particulate matter limitation established in 326 IAC 6.5 (Particulate Matter Limitations Except Lake County) or 326 IAC 12 (New Source Performance Standards ) are more stringent. Therefore, this rule does not apply to this source, which is limited according to 326 IAC 6.5 and 326 IAC 12.

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

The source is located in Wayne County and was modified after December 13, 1985. However, the fugitive particulate emissions are negligible. Pursuant to 326 IAC 6-5-1(b), this source is exempt from the requirements of 326 IAC 6-5.

**326 IAC 11-4 (Fiberglass Insulation Manufacturing)**

Johns Manville is not subject to the requirements of this rule because these requirements apply only to facilities located in Shelby County that produce fiberglass insulation by the superfine (flame blown) process existing on June 19, 1979.

**State Rule Applicability – Boiler #2, Forming and Collection Modules**

**326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**

Pursuant to 326 IAC 7-1.1-1, any facility with a potential to emit SO<sub>2</sub> greater than or equal to 25 tons per year or 10 pounds per hour shall comply with the requirements of 326 IAC 7-1.1. None of the sources emission units have a potential to emit SO<sub>2</sub> greater than or equal to 25 tons per year or 10 pounds per hour.

**326 IAC 7-4-4 (Wayne County Sulfur Dioxide Emission Limitations)**

Pursuant to 326 IAC 7-4-4, the following sulfur dioxide emission limitations apply in Wayne County for Johns Manville International, Inc. Boiler B-2 no longer burns fuel oil. Therefore, the boiler is able to comply with this limit.

Unit	Description	Limitation
S4	Boiler B-2 (oil/gas)	1.6 lb/MMBTU

**326 IAC 8-1-6 (VOC Emission Limitations)**

The Line 2 and 3 Forming and Collection Modules were installed in 1961, modified in 2000, modified again in 2006, and have the potential to emit volatile organic compounds greater than twenty-five (25) tons per year, but are not subject to the requirements of 326 IAC 8-1-6. These

facilities have satisfied the requirements of 326 IAC 8-1-6 because it is subject to the more restrictive PSD BACT requirements for VOC pursuant to 326 IAC 2-2.

### **State Rule Applicability – Degreasing Operations**

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

This source is located in Wayne County and the degreasing operations were constructed in 2006. Therefore this source is subject to 326 IAC 8-3-2. The applicator cleaning operations are subject to the requirements of 326 IAC 8-3-2. This rule requires that the cleaner be equipped with a cover and a facility for draining cleaned parts as well as that waste solvent be stored only in covered containers.

#### **326 IAC 8-3-5 (Cold cleaner degreaser operation and control)**

(a) This degreaser is a cold cleaner degreaser without a remote solvent reservoir. It was constructed after July 1, 1990. Therefore, 326 IAC 8-3-5(a) applies. The Permittee shall ensure that the following control equipment requirements are met:

This rule requires that the owner and operator of a cold cleaner degreaser facility shall ensure that the degreaser is equipped with a cover that must be designed so that it can be easily operated with one (1) hand if certain conditions exist. The degreaser must be equipped with a facility for draining cleaned articles.

- (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 owner or operator 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.

### Testing Requirements

Testing at the Electric Melter is required for PM/PM10, VOC and CO emissions to demonstrate that the requirements of 326 IAC 2-2 are not applicable and to demonstrate compliance with 326 IAC 6.5-1-1(a)(2). The Electric Melter was constructed in 2006 and will startup in 2007. The Permittee shall, no later than 180 days after initial startup of the Electric Melter shall perform PM/PM10, VOC and CO testing. These tests shall be repeated once every five (5) years from the date of valid compliance demonstration utilizing methods approved by the Commissioner.

Testing on one of the Shredding and Packaging Processes is required for PM/PM10 emissions to demonstrate compliance with 326 IAC 2-2-3(a)(3). The Permittee shall, no later than 180 days after the initial startup of the Electric Melter.

Testing on one of the Forming and Collection Modules is required for PM/PM10, VOC and CO emissions to demonstrate that the requirements of 326 IAC 2-2 are not applicable and to demonstrate compliance with 326 IAC 2-2-3(a)(3) and 326 IAC 6.5-10-11. The Permittee shall perform PM/PM10, VOC and CO testing on one of the Forming and Collection Modules within one hundred and eighty (180) days after the initial startup of the Electric Melter. These tests shall also be repeated once every five (5) years from the date of valid compliance demonstration utilizing methods approved by the Commissioner. All testing shall be conducted in accordance with Section C - Performance Testing.

### 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:

1. Line 2 and Line 3 Forming and Collection Modules have applicable compliance monitoring conditions as specified below:
  - (a) Visible emission notations of stacks (S2 and S3) exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
  - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
  - (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
  - (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
  - (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C Response to Excursions or Exceedances shall be considered a deviation from this permit.
  - (f) The Permittee shall record the pressure drop across the baghouses (S86, S85, S12, and S13) used in conjunction with the process, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 8.0 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.
  - (g) 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.
  - (h) For multi-compartment units, 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.

- (i) For a single compartment baghouses 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).
- (j) 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the airstream and water spray systems associated with the Line 2 and Line 3 Forming and Collection Modules must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 6.5-10-11 (Johns Manville Corporation), and 326 IAC 2-7 (Part 70).

- 2. The raw material handling, storage, and batching equipment has applicable compliance monitoring conditions as specified below:
  - (a) Visible emission notations of the railcar unloading station stack #165, raw material batch silos, day bins stack exhaust stack exhausts 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.
  - (f) The Permittee shall record the pressure drop across the baghouse exhausting to stack #165 used in conjunction with the railcar unloading station, at least once per shift when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation

from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

- (g) In the event that bag failure has been observed (bag failure can be indicated by a significant drop in the baghouses 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):
  - (i) For multi-compartment units, 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.
  - (ii) For a single compartment baghouses 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 have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses and fabric filters must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 6.5-10-11 (Johns Manville Corporation), 326 IAC 6.5-1-2 (Particulate emission limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner), and 326 IAC 2-7 (Part 70).

The compliance monitoring requirements applicable to this source are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
boot lift device or similar device and the baghouse used to control PM emissions and opacity from the rail car unloading station	Water Pressure Drop	Daily	1.0 and 7.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
The baghouses used to control PM emissions from the Railcar Receiving	Water Pressure Drop	Daily	1.0 and 7.0 inches	Response Steps

Control	Parameter	Frequency	Range	Excursions and Exceedances
Station, Raw Material Silos, Day Bin 1, Day Bin 2, Mixer, Batch Transfer System and Weigh Scale	Visible Emissions		Normal-Abnormal	
The Electric Melter baghouse	Water Pressure Drop	Daily	2.0 and 4.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Line 2 and Line 3 Forming and Collection Modules collection chain	Visible Emissions	Daily	Normal-Abnormal	Response Steps
Shredding and packaging area baghouse systems	Water Pressure Drop	Daily	1.0 and 8.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

**Recommendation**

The staff recommends to the Commissioner that the Part 70 permit 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 February 6, 2006.

**Conclusion**

The operation of this fiberglass insulation manufacturing plant shall be subject to the conditions of this Part 70 permit T177-22598-00006.

**Appendix A: Emission Calculations  
Emissions Summary**

**Company Name: Johns Manville International, Inc.**  
**Address City IN Zip: 814 Richmond Ave., Richmond IN 47374**  
**Title V Permit #: T177-22598-00006**  
**Reviewer: ERG/BL**  
**Date: November 27, 2006**

Source/Stack Description	Uncontrolled, Potential To Emit (tons/year)					
	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Railcar Receiving	4.18	4.18	-	-	-	-
Raw Material Batch Silos #1 - #8	1.75	1.75	-	-	-	-
Melter daybin #1 and #2	0.59	0.59	-	-	-	-
Mixer	0.01	0.01	-	-	-	-
Batch Transfer System	1.17	1.17	-	-	-	-
Weigh Scales	0.01	0.01	-	-	-	-
Electric Melter	217	217	0.07	4.84	3.65	1.66
Line 2 Forming and Collection Module	132	132	4.82	42.2	68.7	2.23
Line 3 Forming and Collection Module	132	132	4.82	42.2	68.7	2.23
Line 2 Shredding and Packaging	396	396	-	-	-	-
Line 3 Shredding and Packaging	396	396	-	-	-	-
Dust Recycle System	2.61E-04	2.61E-04	-	-	-	-
Cold End Housekeeping System	2.23	2.23	-	-	-	-
Natural Gas-fired Boiler (B-2)	0.20	0.82	0.06	0.59	9.02	10.7
<b>Total Emissions (ton/yr)</b>	<b>1,284</b>	<b>1,285</b>	<b>9.77</b>	<b>89.8</b>	<b>150</b>	<b>16.9</b>

**Appendix A: Emission Calculations  
Emissions Summary (Continued)**

Source/Stack Description	Potential to Emit After Issuance (tons/year)					
	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Railcar Receiving	0.63	0.63 (1)	-	-	-	-
Raw Material Batch Silos #1 - #8	0.26	0.26 (1)	-	-	-	-
Melter daybin #1 and #2	0.18	0.18 (1)	-	-	-	-
Mixer	4.16E-03	4.16E-03 (1)	-	-	-	-
Batch Transfer system	0.35	0.35 (1)	-	-	-	-
Weigh Scales	4.06E-03	4.06E-03 (1)	-	-	-	-
Electric Melter	2.15	2.15 (2)	0.07	4.82	3.64	1.66
Line 2 Forming and Collection Module	58.3	58.3 (3)	4.82	29.7	68.3	19.8 (4)
Line 3 Forming and Collection Module	123.6	123.6 (3)	4.82	29.7	68.3	19.8 (4)
Line 2 Shredding and Packaging	8.15	8.15 (5)	-	-	-	-
Line 3 Shredding and Packaging	13.5	13.5 (5)	-	-	-	-
Dust Recycle System	0.83	0.83 (6)	-	-	-	-
Cold End Housekeeping System	2.23	2.23 (6)	-	-	-	-
Natural Gas-fired Boiler (B-2)	0.20	0.82 (6)	0.06	0.59	9.02	10.7 (7)
<b>Total Emissions (ton/yr)</b>	<b>210</b>	<b>211</b>	<b>9.77</b>	<b>64.8</b>	<b>149</b>	<b>52.1</b>

(1) Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the Mixer, Batch Transfer System, Day Bin 1 and Day Bin 2, Melter Dust Recycle System, shall not exceed 0.03 grains per dry standard cubic foot.  
(2) Pursuant to SSM 177-22008-00006, issued August 10, 2006, in order to render the requirements of 326 IAC 2-2 not applicable.

(3) PM/PM10 emissions from these units (line 2 and 3 forming and collection modules) are specifically limited to 58.3 and 123.6, respectively, pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 6.5-10-

(4) These units are specifically limited to 19.8 NOx tons per year, pursuant to CP-177-5873-00006, issued April 22, 1999 and revised by T177-22598-00006, in order to render the requirements of 326 IAC 2-2 not applic:

(5) Pursuant to CP-177-5873-00006, issued April 22, 1999, 326 IAC 2-2-3(a)(3) and as revised by SSM 177-22008-00006.

(6) Pursuant to CP-177-5873-00006, issued April 22, 1999, in order to render the requirements of 326 IAC 2-2 not applicable.

(7) Although this boiler is specifically limited to 1.49 tons of PM/PM10 per year, pursuant to 326 IAC 6.5-10-11, AP-42 emission factors shows that it's potential to emit PM/PM10 are 0.20 and 0.82 ton per year, respecti

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**Source:** Railcar Receiving  
**Control Device:** Baghouse and boot lift device exhausting to stack S165  
**Description:** Raw materials off-loaded from railcar

**Production**

<b>Actual</b>	13,907 lb/hr	7,519 hr/yr
<b>Potential</b>	17,500 lb/hr	8,760 hr/yr

**Actual Production**

104,566,733 lb/yr

**Potential Production**

153,300,000 lb/yr

**Potential To Emit (Based On Run Hours And Air Flow Rate)**

Unit	Run Time * (min/day)	Air Flow (aft <sup>3</sup> /min)	Controlled Grain Loading (gr/dsft <sup>3</sup> )	Uncontrolled Grain Loading (gr/dsft <sup>3</sup> )	Controlled Potential to Emit (lb/yr)	<b>Controlled Potential to Emit (ton/yr)</b>	<b>Uncontrolled Potential to Emit (ton/yr)</b>
Railcar Receiving	573	1,400	0.02	0.20	836	<b>0.42</b>	<b>4.18</b>

\*Run time is based on the maximum capacity of the production lines.

**Potential to Emit After Issuance**

Unit	Run Time * (min/day)	Air Flow (aft <sup>3</sup> /min)	Permitted Grain Loading (gr/dsft <sup>3</sup> )	Potential to Emit (lb/yr)	<b>Potential to Emit (ton/yr)</b>
Railcar Receiving	573	1,400	0.03	1254	<b>0.63</b>

\*Run time is based on the maximum capacity of the production lines.

**METHODOLOGY**

Potential to Emit (ton/yr) = Run Time (min/day) \* Air Flow (aft<sup>3</sup>/min) \* Grain Loading (gr/dsft<sup>3</sup>) \* 365 days/1yr \* 1 lb/7,000 gr \* 1 ton/2,000 lbs  
Assume that the actual conditions of the displaced air are equal to dry standard conditions.

The assumed baghouse control efficiency is 90%.

**Source:** Eight (8) Raw material Batch Silos  
**Control Device:** Fabric filters exhausted to emission points S21 through S28

**Controlled Outlet Grain Loading:** 0.02 gr/dsft<sup>3</sup>  
**Uncontrolled Outlet Grain Loading:** 0.20 gr/dsft<sup>3</sup>  
**Permitted Outlet Grain Loading:** 0.03 gr/dsft<sup>3</sup>

**Uncontrolled, Potential To Emit**

Material	Run Times * (min/day)	Air Flow (aft <sup>3</sup> /min)	Potential to Emit (lb/yr)	Potential to Emit (ton/yr)
Silo 1 Sand	81.9	325	278	0.14
Silo 7 Soda Ash	72.5	325	246	0.12
Silo 5 Borax	85.9	325	291	0.15
Silo 3 N Syenite	85.2	325	289	0.14
Silo 8 Plate glass Cullet	135	1,140	1,604	0.80
Silo 2 Borosilicate Cullet	12.7	325	43	0.02
Silo 4 Internal Cullet	51.1	325	173	0.09
Silo 6 BD Lime (truck)	48.3	1,140	575	0.29
			<b>Total</b>	<b>1.75</b>

\*Run times are based on the maximum capacity of the production lines.

**Potential to Emit After Issuance**

Material	Run Times * (min/day)	Air Flow (aft <sup>3</sup> /min)	Potential to Emit (lb/yr)	Permit Limit (ton/yr)
Silo 1 Sand	81.9	325	41.7	0.02
Silo 7 Soda Ash	72.5	325	36.9	0.02
Silo 5 Borax	85.9	325	43.7	0.02
Silo 3 N Syenite	85.2	325	43.3	0.02
Silo 8 Plate glass Cullet	135	1,140	241	0.12
Silo 2 Borosilicate Cullet	12.7	325	6.48	0.00
Silo 4 Internal Cullet	51.1	325	26.0	0.01
Silo 6 BD Lime (truck)	48.3	1,140	86.2	0.04
			<b>Total</b>	<b>0.26</b>

**Methodology**

Potential to Emit (ton/yr) = Run Time (min/day) \* Air Flow (aft<sup>3</sup>/min) \* Grain Loading (gr/dsft<sup>3</sup>) \* 365 days/1 yr \* 1 lb/7,000 gr \* 1 ton/2,000 lbs

Assume that actual conditions of the air flow in the batch silos is equal to air flow at dry standard conditions.

The assumed fabric filter control efficiency is 90%.

**Source:** Batch Day Bins #1 & #2  
**Control Device:** Dust Collectors exhausting to stacks S167 and S168

**Potential To Emit**

<b>Permitted Hours</b>	8,760	hrs	
<b>Controlled Grain Loading:</b>	0.01	gr/dsft <sup>3</sup>	Max Potential
<b>Uncontrolled Grain Loading:</b>	0.10	gr/dsft <sup>3</sup>	
<b>Permitted Grain Loading:</b>	0.03	gr/dsft <sup>3</sup>	
<b>Volume Displaced:</b>	81,900,000	aft <sup>3</sup> /yr	Rated Capacity (total)

<b>Pollutant</b>	<b>Permit Limit (lb/hr)</b>	<b>Permit Limit (ton/yr)</b>	<b>Uncontrolled, Potential to Emit (lb/hr)</b>	<b>Potential to Emit (ton/yr)</b>
<b>PM10 :</b>	<b>0.04</b>	<b>0.18</b>	<b>0.13</b>	<b>0.59</b>

**Methodology**

Potential to Emit (ton/yr) = Volume Displaced (aft<sup>3</sup>/yr) \* Grain Loading (gr/dsft<sup>3</sup>) \* 1 lb/7,000 gr \* 1 ton/2,000 lbs  
Assume that the actual conditions of the displaced air are equal to dry standard conditions.  
The assumed dust collector control efficiency is 90%.

Source: Mixer  
Control Device: Sock Filter exhausting indoors to general ventilation

**Characteristics of a Typical Batch**

Component	Batch Mass (lb)	Mass Fraction (%)	Density (lb/ft <sup>3</sup> )
Sand	1,224	0.21	100
Carbocite	2,00	3.44E-04	45.0
Syenite	912	0.16	90.0
Internal Cullet	800	0.14	90.0
Borax	738	0.13	67.0
Bd Lime	331	0.06	50.0
Soda Ash	642	0.11	65.0
Borosilicate cullet	223	0.04	100
Plate Cullet	894	0.15	85.0
HERM Dust	40.0	0.01	20.0

Batch size 5,806  
Batch information from J. Shock Sept 1, 2004 Preliminary PEP Batch House Capacity Increase

**Production**

<b>Actual</b>	13,907 lb/hr	7,519 hr/yr
<b>Potential</b>	17,500 lb/hr	8,760 hr/yr

<u>Actual Production</u>	<u>Potential Production</u>
104,566,733 lb/yr	153,300,000 lb/yr

**Potential Gravity Loaded Volume (ft<sup>3</sup>/yr)**

Sand	323,182
Carbocite	1,173
Syenite	267,558
Internal Cullet	234,700
Borax	290,835
Bd Lime	174,793
Soda Ash	260,788
Borosilicate Cullet	58,880
Plate Cullet	277,705
HERM dust	52,807

Assume that the volume of air displaced is equal to the volume of material processed and the actual conditions of the displaced air are equal to dry standard conditions.

Controlled Outlet Grain Loading: 0.01 gr/dsft<sup>3</sup>  
Uncontrolled Outlet Grain Loading: 0.10 gr/dsft<sup>3</sup>  
Permitted Outlet Grain Loading: 0.03 gr/dsft<sup>3</sup>

	Potential to Emit			Permit Limit		
	(lb/yr)	(lb/hr)	(ton/yr)	(lb/yr)	(lb/hr)	(ton/yr)
Sand	4.62	2.50E-03	2.31E-03	1.39	7.50E-04	6.93E-04
Carbocite	0.02	5.56E-03	8.38E-06	0.01	1.67E-03	2.51E-06
Syenite	3.82	2.78E-03	1.91E-03	1.15	8.33E-04	5.73E-04
Internal Cullet	3.35	2.78E-03	1.68E-03	1.01	8.33E-04	5.03E-04
Borax	4.15	3.73E-03	2.08E-03	1.25	1.12E-03	6.23E-04
Bd Lime	1.75	1.75E-03	1.00E-03	0.75	1.50E-03	0.75E-04
Soda Ash	2.61	2.61E-03	1.69E-03	0.87	1.65E-03	1.07E-04
Borosilicate Cullet	0.59	5.88E-04	3.25E-04	0.29	2.94E-04	1.65E-04
Plate Cullet	2.78	2.78E-03	1.74E-03	0.91	9.10E-04	5.73E-04
HERM dust	0.53	5.28E-04	3.17E-04	0.26	2.64E-04	1.65E-04

**Source:** Batch Transfer System  
**Control Device:** Baghouse exhausting indoors to general ventilation

**Potential To Emit**

Unit	Run Time * (min/day)	Air Flow (aft <sup>3</sup> /min)	Controlled Grain Loading (gr/dsft <sup>3</sup> )	Uncontrolled Grain Loading (gr/dsft <sup>3</sup> )	Controlled Potential to Emit (lb/yr)	<b>Controlled Potential to Emit (ton/yr)</b>	<b>Uncontrolled Potential to Emit (ton/yr)</b>
Batch Transfer	1,381	325	0.01	0.10	234	<b>0.12</b>	<b>1.17</b>

\*Run time is based on the maximum capacity of the production lines.

**Potential to Emit After Issuance**

Unit	Run Time * (min/day)	Air Flow (aft <sup>3</sup> /min)	Permitted Grain Loading (gr/dsft <sup>3</sup> )	Potential to Emit (lb/yr)	<b>Permit Limit (ton/yr)</b>
Batch Transfer	1,381	325	0.03	702	<b>0.35</b>

**Methodology**

Potential to Emit (ton/yr) = Run Time (min/day) \* Air Flow (aft<sup>3</sup>/min) \* Grain Loading (gr/dsft<sup>3</sup>) \* 365 days/1yr \* 1 lb/7,000 gr \* 1 ton/2,000 lbs  
Assume that actual conditions of the air flow in the batch transfer system is equal to air flow at dry standard conditions.  
The assumed baghouse control efficiency is 90%.

Source: Weigh Scale  
Control Device: Sock Filter exhausting indoors to general ventilation

Characteristics of a Typical Batch

Component	Batch Mass (lb)	Mass Fraction (%)	Density (lb/ft <sup>3</sup> )
Sand	1,224	0.18	100
Carbocite	2.00	2.98E-04	45.0
Syenite	912	0.14	90.0
Internal Cullet	800	0.12	90.0
Borax	738	0.11	67.0
Bd Lime	331	0.05	50.0
Soda Ash	642	0.10	65.0
Borosilicate cullet	223	0.03	100
Plate Cullet	894	0.13	85.0
Fluorspar	100	0.01	110
Bottle Cullet	800	0.12	95.0
HERM Dust	40.0	0.01	20.0

Batch size 6,706  
Batch information from J. Shock Sept 1, 2004 Preliminary PEP Batch House Capacity Increase

Production

<b>Actual</b>	13,907 lb/hr	7519 hr/yr
<b>Potential</b>	17,500 lb/hr	8760 hr/yr

Actual Production	Potential Production
104,566,733 lb/yr	153,300,000 lb/yr

Potential Gravity Loaded Volume (ft<sup>3</sup>/yr)

Sand	279808
Carbocite	1016
Syenite	231649
Internal Cullet	203201
Borax	251803
Bd Lime	151334
Soda Ash	225788
Borosilicate Cullet	50978
Plate Cullet	240435
Fluorspar	20782
Bottle Cullet	192506
HERM dust	45720

Assume that the volume of air displaced is equal to the volume of material processed and the actual conditions of the displaced air are equal to dry standard conditions.

Controlled Outlet Grain Loading:	0.01 gr/dsft <sup>3</sup>
Uncontrolled Outlet Grain Loading:	0.10 gr/dsft <sup>3</sup>
Permitted Outlet Grain Loading:	0.03 gr/dsft <sup>3</sup>

	Uncontrolled, Potential to Emit		Permit Limit	
	(lb/yr)	(ton/yr)	(lb/yr)	(ton/yr)
Sand	4.00	2.00E-03	1.20	6.00E-04
Carbocite	0.01	7.26E-06	0.00	2.18E-06
Syenite	3.31	1.65E-03	0.99	4.96E-04
Internal Cullet	2.90	1.45E-03	0.87	4.35E-04
Borax	3.60	1.80E-03	1.08	5.40E-04
Bd Lime	2.16	1.08E-03	0.65	3.24E-04
Soda Ash	3.23	1.61E-03	0.97	4.84E-04
Borosilicate Cullet	0.73	3.64E-04	0.22	1.09E-04

Source: Cold Top Electric Melter  
Control Device: Baghouse exhausted to stack S166

Factors:		<b>PM10</b>	<b>VOC</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>HF</b>
	Safety Factor	10%	20%	100%	100%	100%	100%
	Control Efficiency	99%	0%	0%	0%	0%	0%

	Actual	Emission Factors	Controlled Potential	
PM10 :	NA	lb/lb of glass	2.83E-05	Based on August/November 2002 test results from a similar unit in Wertheim Germany
VOC :	NA	lb/lb of glass	6.31E-05	
NOx :	NA	lb/lb of glass	2.17E-05	
CO :	NA	lb/lb of glass	4.76E-05	
SO <sub>2</sub> :	NA	lb/lb of glass	9.16E-07	
Fluoride:	NA	lb/lb of glass	3.67E-07	

Potential To Emit

AVG. Actual Hours of Operation :	0.0	hr/yr	No historical data, added as part of a 2006 modification (SPM 177-22666-00006).
Actual Line Pull-Rate Average :	0.0	lb glass/hr	
Permitted Hours :	8,760		After Line 2 and Line 3 Melt Furnace have been permanently shut down.
Permitted Pull-Rate :	17,500	lb glass/hr	
Assumed fusion loss :	15%		
Potential to Emit Line Feed-Rate:	20,125	lb glass/hr	

Pollutant	Permit Limit (lb/hr)	Permit Limit (ton/yr)	Uncontrolled Potential to Emit (lb/hr)	Uncontrolled Potential to Emit (ton/yr)
PM10 :	0.49	2.15	49.6	217
VOC :	1.10	4.82	1.10	4.84
NOx :	-	-	0.38	1.66
CO :	0.83	3.64	0.83	3.65
SO <sub>2</sub> :	-	-	0.02	0.07
Single HAP :	-	-	0.01	0.03

\* Single HAP is hydrogen fluoride (hydrofluoric acid).

Methodology

Potential to Emit (ton/yr) = Line Pull-Rate (lb glass/hr) \* Potential Emission Factor (lb/lb of glass) \* (1+Safety Factor) \* 8,760 hrs/yr \* 1 ton/2,000 lbs  
Test results from a similar unit in Wertheim Germany were multiplied a safety factor to constitute a realistic upper bound for the potential emission factors.  
\* Uncontrolled PM10 emissions were calculated from the controlled test results from Wertheim Germany and the available control efficiency.

**Source:** Line 2 Climate Pro Collection Module  
**Control Device:** Fog box / wet spray collection system exhausted to stack S2

		PM10	VOC	NOx	CO	SO <sub>2</sub>
<b>Factors:</b>	<b>Safety Factor</b>	20%	20%	20%	75%	10%
	<b>Assumed Current Control Efficiency</b>	45%	10%	0%	0%	0%
	<b>Estimated Potential Control Efficiency</b>	66%	20%	0%	0%	0%

	Actual	Emission Factors	Controlled Potential	
<b>PM10 :</b>	1.58E-03	<i>lb/lb of glass</i>	1.18E-03	Richmond Test Data -- 1/25/2001, EP Outlet, Compliance Method 5/202.
<b>VOC :</b>	8.26E-04	<i>lb/lb of glass</i>	8.81E-04	Waterville Test Data -- CBX Permit application based on Waterville data.
<b>NOx :</b>	4.85E-05	<i>lb/lb of glass</i>	5.81E-05	Richmond Test Data -- 1/25/2001, EP Outlet, Compliance.
<b>CO :</b>	1.02E-03	<i>lb/lb of glass</i>	1.79E-03	Waterville Test Data -- CBX Permit application.
<b>SO<sub>2</sub> :</b>	1.14E-04	<i>lb/lb of glass</i>	1.26E-04	Defiance Test Data -- 1994 Defiance 2601 and 2603 on 753 Glass.

**Potential To Emit**

<b>AVG. Actual Hours of Operation :</b>	7,519	hr/yr	Average for October 1, 2003 to September 30, 2005
<b>Actual Line Pull-Rate Average :</b>	6,228	lb glass/hr	Average for October 1, 2003 to September 30, 2005
<b>Max Potential Hours :</b>	8,760	hr/yr	Max Potential
<b>Max Line Pull-Rate :</b>	8,750	lb glass/hr	Rated Capacity

Pollutant	Permit Limit (lb/hr)	Permit Limit (ton/yr)	Potential to Emit * (lb/hr)	Potential to Emit * (ton/yr)	Uncontrolled Potential to Emit ** (lb/hr)	Uncontrolled, Potential to Emit ** (ton/yr)
<b>PM10 :</b>	10.3	58.3	10.3	45.0	30.3	132
<b>VOC :</b>	6.78	29.7	7.71	33.8	9.63	42.2
<b>NOx :</b>	4.53	19.8	0.51	2.23	0.51	2.23
<b>CO :</b>	15.6	68.3	15.7	68.7	15.7	68.7
<b>SO<sub>2</sub> :</b>	-	-	1.10	4.82	1.10	4.82

Test results from a similar units were adjusted to account for control devices and multiplied by a safety factor to constitute a realistic upper bound for the potential emission factors.

\* Potential to emit includes the estimated potential control efficiency and margin of safety.

\*\* Uncontrolled potential to emit removes the assumed control efficiency where the test data was collected and adds a safety factor to constitute a realistic upper bound.

**Methodology**

Controlled Potential Emission Factor (lb/lb of glass) = (Actual Emission Factor / (1 - Assumed Current Control Efficiency))

\*(1 - Estimated Potential Control Efficiency) \* (1 + Safety Factor)

Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* Controlled Potential Emission Factor (lb/lb of glass)

Potential to Emit (ton/yr) = Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

Uncontrolled, Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* (Actual Emission Factor / (1 - Assumed Current Control Efficiency)) \* (1 + Safety Factor)

Uncontrolled, Potential to Emit (ton/yr) = Uncontrolled, Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

Source: Line 3 Blowing Wool Collection Module  
Control Device: Fog box / wet spray collection system exhausted to stack S3

Factors:		PM10	VOC	NOx	CO	SO <sub>2</sub>
Safety Factor		20%	20%	20%	75%	10%
Assumed Current Control Efficiency		45%	10%	0%	0%	0%
Estimated Potential Control Efficiency		66%	20%	0%	0%	0%

	Actual	Emission Factors	Controlled Potential	
PM10 :	1.58E-03	lb/lb of glass	1.18E-03	Richmond Test Data -- 1/25/2001, EP Outlet, Compliance Method 5/202.
VOC :	8.26E-04	lb/lb of glass	8.81E-04	Waterville Test Data -- CBX Permit application based on Waterville data.
NOx :	4.85E-05	lb/lb of glass	5.81E-05	Richmond Test Data -- 1/25/2001, EP Outlet, Compliance.
CO :	1.02E-03	lb/lb of glass	1.79E-03	Waterville Test Data -- CBX Permit application.
SO <sub>2</sub> :	1.14E-04	lb/lb of glass	1.26E-04	Defiance Test Data -- 1994 Defiance 2601 and 2603 on 753 Glass.

Potential To Emit

AVG. Actual Hours of Operation :	7,100	hr/yr	Average for October 1, 2003 to September 30, 2005
Actual Line Pull-Rate Average :	6,375	lb glass/hr	Average for October 1, 2003 to September 30, 2005
Max Potential Hours :	8,760	hr/yr	Max Potential
Max Line Pull-Rate :	8,750	lb glass/hr	Rated Capacity

Pollutant	Permit Limit (lb/hr)	Permit Limit (ton/yr)	Potential to Emit * (lb/hr)	Potential to Emit * (ton/yr)	Uncontrolled Potential to Emit ** (lb/hr)	Uncontrolled, Potential to Emit ** (ton/yr)
PM10 :	10.3	124	10.3	45.0	30.3	132
VOC :	6.78	29.7	7.71	33.8	9.63	42.2
NOx :	4.53	19.8	0.51	2.23	0.51	2.23
CO :	15.6	68.3	15.7	68.7	15.7	68.7
SO <sub>2</sub> :	-	-	1.10	4.82	1.10	4.82

Test results from a similar units were adjusted to account for control devices and multiplied by a safety factor to constitute a realistic upper bound for the potential emission factors.

\* Potential to emit includes the estimated potential control efficiency and margin of safety.

\*\* Uncontrolled potential to emit removes the assumed control efficiency where the test data was collected and adds a safety factor to constitute a realistic upper bound.

Methodology

Controlled Potential Emission Factor (lb/lb of glass) = (Actual Emission Factor / (1 - Assumed Current Control Efficiency))

\*(1 - Estimated Potential Control Efficiency) \* (1 + Safety Factor)

Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* Controlled Potential Emission Factor (lb/lb of glass)

Potential to Emit (ton/yr) = Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

Uncontrolled, Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* (Actual Emission Factor / (1 - Assumed Current Control Efficiency)) \* (1 + Safety Factor)

Uncontrolled, Potential to Emit (ton/yr) = Uncontrolled, Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

**Source:** Line 2 Shredding and Packaging  
**Control Device:** Two baghouses in parallel exhausted to stacks S85, S86 and S87

**Factors:**

	PM10
Safety Factor	20%
Control Efficiency	99%

	Actual	Emission Factors	Controlled Potential
PM10 :	8.60E-05	lb/lb of glass	1.032E-04

Based on grain loading

**Potential To Emit**

Line 2 Actual Hours of Operation :	7,519	hr/yr	Average for October 1, 2003 to September 30, 2005
Glass Pull :	6,228	lb/hr	Average for October 1, 2003 to September 30, 2005
Max Potential Hours :	8,760	hr/yr	Max Potential
Max Line Pull-Rate :	8,750	lb/hr	Rated Capacity

Pollutant	Permit Limit (lb/hr)	Permit Limit (ton/yr)	Potential to Emit * (lb/hr)	Potential to Emit * (ton/yr)	Uncontrolled Potential to Emit ** (lb/hr)	Uncontrolled, Potential to Emit ** (ton/yr)
PM10 :	1.86	8.15	0.90	3.96	90.4	396

\* Potential to emit use the controlled potential emission factor.

\*\* Uncontrolled potential to emit removes the control efficiency and adds a safety factor to constitute a realistic upper bound.

**Methodology**

Controlled potential was documented in the appendix of SSM 177-22008-00006.

Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* Controlled Potential Emission Factor (lb/lb of glass)

Potential to Emit (ton/yr) = Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

Uncontrolled, Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* (Actual Emission Factor/(1-Control Efficiency)) \* (1+Safety Factor)

Uncontrolled, Potential to Emit (ton/yr) = Uncontrolled, Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

**Source:** Line 3 Shredding and Packaging  
**Control Device:** Two baghouses in parallel exhausted to stacks S12, S13 and S14

**Factors:**

	PM10
Safety Factor	20%
Control Efficiency	99%

	Actual	Emission Factors	Controlled Potential
PM10 :	8.60E-05	lb/lb of glass	1.032E-04

Based on grain loading

**Potential To Emit**

Line 2 Actual Hours of Operation :	7,100	hr/yr	Average for October 1, 2003 to September 30, 2005
Glass Pull :	6,375	lb/hr	Average for October 1, 2003 to September 30, 2005
Max Potential Hours :	8,760	hr/yr	Max Potential
Max Line Pull-Rate :	8,750	hr/yr	Rated Capacity

Pollutant	Permit Limit (lb/hr)	Permit Limit (ton/yr)	Potential to Emit * (lb/hr)	Potential to Emit * (ton/yr)	Uncontrolled Potential to Emit ** (lb/hr)	Uncontrolled, Potential to Emit ** (ton/yr)
PM10 :	3.09	13.5	0.90	3.96	90.4	396

\* Potential to emit use the controlled potential emission factor.

\*\* Uncontrolled potential to emit removes the control efficiency and adds a safety factor to constitute a realistic upper bound.

**Methodology**

Controlled potential was documented in the appendix of SSM 177-22008-00006.

Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* Controlled Potential Emission Factor (lb/lb of glass)

Potential to Emit (ton/yr) = Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

Uncontrolled, Potential to Emit (lbs/hr) = Max Line Pull-Rate (lb glass/hr) \* (Actual Emission Factor/(1-Control Efficiency)) \* (1+Safety Factor)

Uncontrolled, Potential to Emit (ton/yr) = Uncontrolled, Potential to Emit (lbs/hr) \* Max Potential Hours (hr/yr) \* 1 ton/2,000 lbs

**Source:** Melter Dust Recycle System exhausted to stack S34  
**Control Device:** Uncontrolled

Component	Batch Mass (lb)	Dust Mass Fraction (%)	Dust Density (lb/ft <sup>3</sup> )
Melter Recycle Dust	40.0	5.96E-03	25.0

Batch size 6,706

Based on historic recycle rates, the recycle mass was computed assuming a recycle rate of 0.596% of the total mass charged  
Batch information from J. Shock Sept 1, 2004 Preliminary PEP Batch House Capacity Increase

**Total Production**

<b>Actual</b>	13,907 lb/hr	7,519 hr/yr
<b>Potential</b>	17,500 lb/hr	8,760 hr/yr

**Actual Production**

**Potential Production**

104,566,733 lb/yr

153,300,000 lb/yr

**Potential Gravity Loaded Volume (ft<sup>3</sup>/yr)**

Melter Recycle Dust 36,576 ft<sup>3</sup>/yr

<b>Actual Outlet Grain Loading:</b>	0.01 gr/dsft <sup>3</sup>
<b>Uncontrolled Outlet Grain Loading:</b>	0.10 gr/dsft <sup>3</sup>
<b>Limited Outlet Grain Loading: *</b>	0.03 gr/dsft <sup>3</sup>

Assume that the volume of air displaced is equal to the volume of material processed  
and the actual conditions of the displaced air are equal to dry standard conditions.

	Permit Limit				Uncontrolled, Potential to Emit		
	PM/PM10 * (lb/hr)	PM/PM10 (ton/yr)	NOx (ton/yr)	SO <sub>2</sub> (ton/yr)	PM/PM10 (lb/hr)	PM/PM10 (lb/yr)	PM/PM10 (ton/yr)
Melter Recycle Dust	0.19	0.83	0	0	5.96E-05	0.52	2.61E-04

**METHODOLOGY**

Potential Production (lb/yr) = Potential Production (lb/hr) \* 8,760 hrs/yr

Melter Recycle Dust, Gravity Loaded Volume (ft<sup>3</sup>/yr) = Potential Production (lb/yr) \* Dust Mass Fraction (%) \* Dust Density (lbs/ft<sup>3</sup>)

Potential to Emit (lb/yr) = Melter Recycle Dust, Gravity Loaded Volume (ft<sup>3</sup>/yr) \* Outlet Grain Loading (gr/dsft<sup>3</sup>) \* 1 lb/7,000 gr

Potential to Emit (ton/yr) = Potential to Emit (lb/yr) \* 1 ton/2,000 lbs

\* Pursuant to 326 IAC 6.5-1-2(a)

\*\* Pursuant to CP 177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3(a)(3)

**Source:** Natural Gas-fired Boiler  
**Description:** Natural Gas Combustion, MM BTU/HR <100

Heat Input Capacity MMBtu/hr	Potential Throughput MMSCF/yr
25.0	215

Emission Factor (lb/MMSCF)	Pollutant					
	PM*	PM10*	SO <sub>2</sub>	NOx**	VOC	CO
Potential to Emit (tons/yr)	1.90	7.60	0.60	100	5.50	84.0
	0.20	0.82	0.06	10.7	0.59	9.02

Permit Limit (lb/hr) ***	PM*	PM10*
	0.34	0.34
Permit Limit (tons/yr)	1.49	1.49

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM combined.

\*\*Emission factor for NOx (Uncontrolled) = 100 lb/MMSCF

\*\*\* Emission Limits pursuant to 326 IAC 6.5-10-11.

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July 1998).

All emission factors are based on normal firing.

Emission Factor (lb/MMSCF)	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Potential to Emit (tons/yr)	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03
	2.25E-04	1.29E-04	8.05E-03	1.93E-01	3.65E-04

Emission Factor (lb/MMSCF)	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Potential to Emit (tons/yr)	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03
	5.37E-05	1.18E-04	1.50E-04	4.08E-05	2.25E-04

The five highest organic and metal HAPs emission factors provided above are from AP-42, Chapter 1.4, Table 1.4-2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**METHODOLOGY**

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu  
Potential to Emit (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lb/MMSCF) x 1 ton/2,000 lbs